Newcastle-on-Tyne No. 88108

18 FEB 1932

Rpt. C.11.

Index. No. 25410.
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

RETAIN

Computation of Freeboard for ~~Steamer, Sailing Ship,~~ Tanker

having Shelter deck (no tonnage opening)

(Type of Superstructures.)

Port of Survey Newcastle-on-Tyne

Date of Survey 17th Febr. 1932

Name of Surveyor J. Macdonald.

Particulars of Classification ✠ 100 A1 Shelter deck with freeboard

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
CADILLAC	British Newcastle	140703	12062 ~~12076~~	1917-12

Moulded Dimensions: Length 529·50 Breadth 66·15 Depth {42·06 ~~34·0~~

Moulded displacement at moulded draught = 85 per cent. of moulded depth 29200 ~~23030~~ tons

Coefficient of fineness for use with Tables ·816

Depth for Freeboard (D)

Moulded depth	42·06
Stringer plate	·08
Sheathing on exposed deck $T\left(\frac{L-S}{L}\right)$ =	–
Depth for Freeboard (D) =	42·14

Depth correction

(a) Where D is greater than Table depth
(D – Table depth) R = (42·14 – 35·30) × 3 = + 20·52

(b) Where D is less than Table depth (if allowed)
(Table depth – D) R =

If restricted by superstructures –

Round of Beam correction

Moulded Breadth (B) 66·15

Standard Round of Beam = $\frac{B \times 12}{50}$ = 15·88

Ship's Round of Beam = 16·25

Difference ·37

Restricted to

Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right)$ = $\frac{\cdot 37}{4} \times 1$ = –·09.

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S_1)	Height	Height Correction	Effective Length (E)
Poop enclosed					
„ overhang					
R.Q.D. enclosed ...					
„ „ overhang ...					
Bridge enclosed... ...					
„ overhang aft ...					
„ overhang forward					
F'cle enclosed					
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft ...					
„ „ forward					
Total					

Flush Deck

Standard Height of Superstructure

„ „ R.Q.D.

Deduction for complete superstructure

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

„ „ $\frac{S_1}{L}$ =

„ „ $\frac{E}{L}$ =

Percentage from Table, Line A.
(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 = ✓

RETAIN

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	62·95	1	62·95	36·0	36·00	1	36·00
1/6 L from A.P. ...	28·01	4	112·04	15·8	15·80	4	63·20
2/6 L „ ...	6·92	2	13·84	3·95	3·95	2	7·90
Amidships ...	–	4	–	–	–	4	–
2/6 L from F.P. ...	13·85	2	27·70	9·75	9·77	2	19·54
1/6 L „ ...	56·02	4	224·08	39·1	39·10	4	156·40
F.P.	125·90	1	125·90	90·0	90·00	1	90·00
Total ...			566·51				373·04

Mean actual sheer aft / Mean standard sheer aft = Deficient

Mean actual sheer forward / Mean standard sheer forward = Deficient

Length of enclosed superstructure / L forward of amidships =

„ „ aft of „ =

Correction = $\frac{\text{Difference between sums of products}}{18}\left(\cdot 75 - \frac{S}{2L}\right)$ = $\frac{193 \cdot 47}{18}(\cdot 75 - 0)$ = + 8·06

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

	Ft.
Depth to Freeboard Deck =	42·14
Summer freeboard =	
Moulded draught (d) =	

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

Δ =

Tons per inch immersion at summer load water line

T =

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

=

TABULAR FREEBOARD corrected for Flush Deck (if required)

110·76 + 7·94 = 118·70

Correction for coefficient $\frac{\cdot 816 + \cdot 68}{1 \cdot 36}$ = $\frac{1 \cdot 496}{1 \cdot 36}$ = 130·57

	+	–
Depth Correction	20·52	–
Deduction for superstructures	–	
Sheer correction	8·06	–
Round of Beam correction		·09
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc.		
	28·58	·09

+ 28·49

Summer Freeboard = 159·06

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 „	

1906 freeboard assigned S.F.B. 13.4.32

© 2021 Lloyd's Register Foundation

W370-0038 (1/3)

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

		Fore hold		'Tween Deck (SIDE)		Main tanks	Summer tanks	Bunker	Bunker		
Description of Hatchway		Fore hold		'Tween Deck (SIDE)		Main tanks	Summer tanks	Bunker	Bunker		
Dimensions of Hatchway		8'-0" × 6'-0"		5'-9" × 4'-0"	4'-0" × 3'-10"	6'-0" × 4'-0"	6'-0" × 4'-0"	5'-0" × 3'-0"	5'-0" × 3'-6"		
COAMINGS	Height above Deck ...	2'-6"		2'-6"	2'-6"	2'-6"	2'-6"	2'-6"	2'-6"		
	Thickness { Sides ...	·44		·40	·40	·40	·40	·44	·44		
	Thickness { Ends ...	·44		·40	·40	·40	·40	·44	·44		
	Stiffeners	–		–	–	–	one vertical stiffr. @ side	–	–		
	Brackets, Stays	–		–	–	–		–	–		
HATCH BEAMS	Number ... ... / Spacing ... ... / Scantling and Sketch ... / Bearing Surface	✓		✓	✓	✓	✓	✓	✓		
FORE AND AFTERS	Number ... ... / Spacing ... ... / Unsupported Lengths ... / Scantling* and Sketch ... / Bearing Surface	✓		✓	✓	✓	✓	✓	✓		
HATCH COVERS	Material	Steel		Steel	Steel	Steel	Steel	Steel	Steel		
	Thickness	·36		·34	·34	·62	·62	·34	·34		
	How fitted ... with	4 × 3 × ·36 stiffener		with 4 × 3 × ·36 (4) Stiffeners	with (2) 4 × 3 × ·36 stiffeners	–	–	–	–		
	Bearing Surface	✓				–	–	–	–		
Spacing of Cleats ... ... / Number of Tarpaulins		✓		✓	✓						

*Are wood fore and afters steel shod at all bearing surfaces? ✓
Are battens and wedges efficient and in good condition? ✓
Are tarpaulins in good condition and in accordance with rule requirements? ✓
Are lashings provided in accordance with rule requirements? ✓

Particulars of fiddley, funnel and ventilator coamings:— Stokehold gratings covered by strong steel hinged covers. Fidley & funnel ventilators in efficient condition. Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:— ✓

Particulars of Companionways:— One steel companion 7'-0" × 5'-9" × 7'-0" on shelter deck leading to crew space forward } doors
One " " 3'-6" × 7'-6" × 7'-0" high on " " " " " " } doors
~~of light panel wood~~ hinged steel door with 18" sills, doors operated from both sides.
One steel house 25'-0" × 21'-0" × 7'-6" high leading to steering gear, door of steel with 18" sill, door operated from both sides.
Two " entrances 9'-6" × 20'-0" × 6'-9" " " " pump rooms, steel W.T. doors " 16" ", doors " " " "
one steel companion 4'-0" × 2'-6" × 2'-3" " " " fore peak with W.T. steel plate cover.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
12 vents on shelter deck 9" diar., coamings 36" × ·25 and one 6" diar., coaming 36" × ·25 led to crew space & store room
3 " " " " 15" " , " 36" × ·32 led to fore hold and tween decks.
2 " " " " 18" " , " 48" × ·38 " " pump room. Specially supported
2 " " " " 12" " , " 36" × ·32 " " bunker.
1 " " " " 9" " , " 36" × ·25 " "
12 " " " " 9" " " 36" × ·25 " " after cabins
1 " " " " 6" " " 36" × ·25 " " " store.
all ventilators are constructed in accordance with Rules & coamings closed with wood plugs & canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
One gooseneck iron airpipe on shelter deck 32" high × 2½" diar. from fore peak
2 " " " " " " 32" " × 2" " " fore deep } with patent cap
2 iron pipes (") " " " 42" × 4" " " } with patent cap
2 gooseneck iron " " " " 13" " × 3" " " fore cofferdam.
6 " " " " " 15" " × 2½" " " double bottom tanks.
Means of closing provided

Particulars of Gangway Cargo and Coaling Ports:— ✓

Rpt. C. 11 (Contd.) Index No.

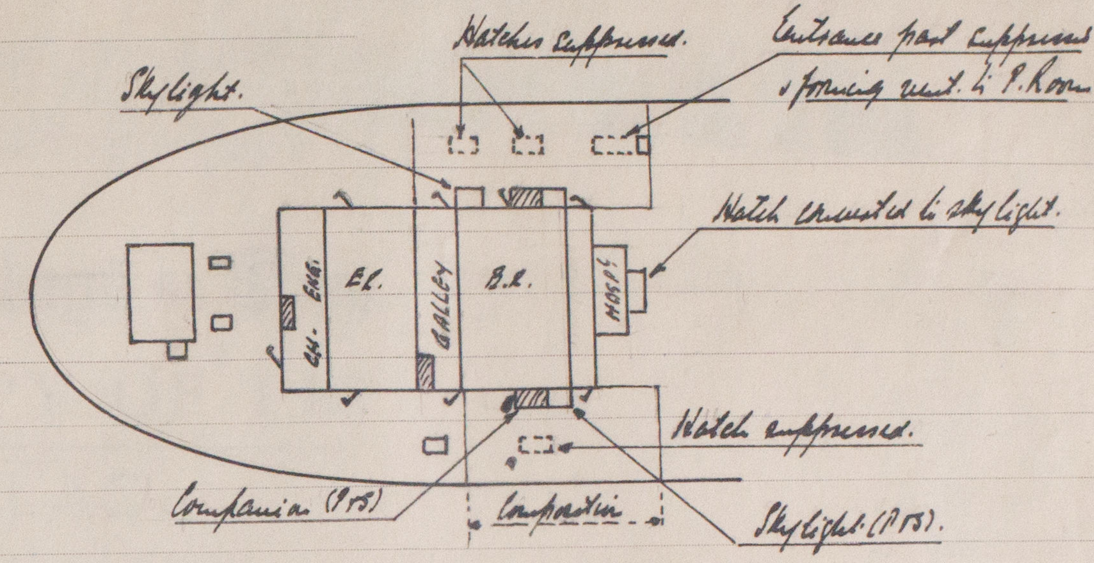
Newcastle-on-Tyne

C7361 **Lloyd's Register of Shipping.** JUL -5 1938

RETAIN

Ship's Name "CADILLAC" Official No. 140403

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines



1. Hatch at fore end of hospital converted to steel skylight 4'-6" × 3'-0" with H. steel flaps with efficient fastenings.
2. 2P & 1S. (5'-0" × 3'-6") steel hatches to T.Dk. suppressed & deck in way plated over.
3. Hatch to stokehold (P) part suppressed & plated over, except fore end forming vent to pump room, thus [sketch] Closed by wood plug & canvas cover.
4. House at aft end of casing extended to casing sides (P&S) & W.T. entrance doors to Eng. Room moved to port & starbd sides of casing.
5. Companion fitted through steel house at aft end of casing. Door 2" solid H. wood secured by double handle spring lock. Sill 18".
6. Strong steel skid skylights constructed at (P&S) sides of casing to crews quarters with hinged steel flaps efficiently fastened.
7. Two strong steel companions 6'-9" × 2'-6" constructed at (P&S) sides of casing to crews quarters. Doors 2" solid H. wood secured by double handled spring locks. Sills 18".
8. 16 (P) & 9 (S) 6" dia. ventilators fitted to crews quarters. 30" × ·30 & closed by wood plugs & canvas covers.
9. Additional sidelights fitted in Shelter T.Dk. of strong construction & fitted with hinged deadlights.
10. Ash shoot (S) suppressed & doublings fitted over openings in shell & decks.
11. 1 W.C. & 1 scupper & W. Basin discharge from Ch. Engineers room led to screw down valves (non return) in Engine Room & operated at valves.
12. 1 W.C. discharge from crews quarters (P) in Shelter T.Dk led to screw down non-return valve in Tween decks operated at valve.
13. 3 scuppers & wash basin discharges (P) led to ships side in Boiler Room below upper deck with screw down non-return valves geared to Shelter T.Dk.
14. 1 Scupper & W. Basin & 1 W.C. discharge from Captains bath room above Bridge led to storm valve in Shelter T.Dk.

Copy placed on board. 4 - 9" dia. vents to the crew space forward have been suppressed.

A. Allison.

27.6.38.

The gross & nett tonnages have been amended as under.
Gross 12061.59. Nett 7385.49.

S.B. 5.7.38

5m.3,37. T.

W370-0038(213)

© 2021 Lloyd's Register Foundation

Cadillac

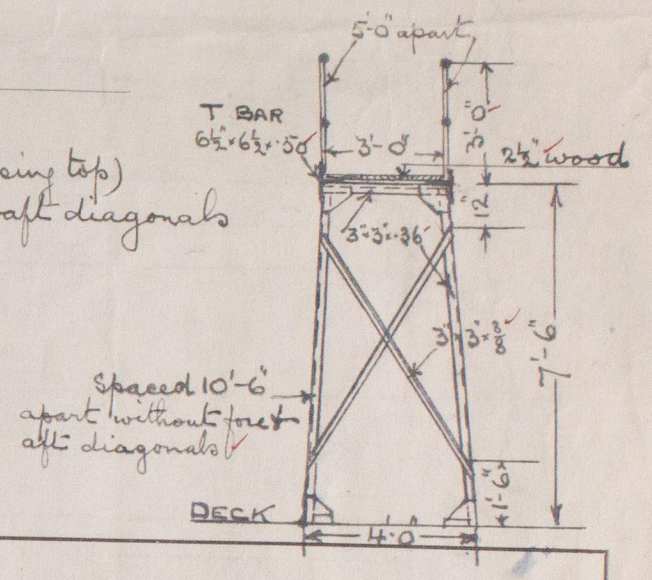
Particulars of Scuppers and Sanitary Discharge Pipes — 8 Collinson scuppers @ side from Shelter deck.
Sanitary discharge pipes fitted with brass storm valves above 2nd deck except that 4 aft discharge below 2nd Dk.
One @ 2" scupper from pantry and one on starbd side amidships also four @ 2½" and two @ 2" aft all discharging above 2nd Dk have no storm valves fitted
Three @ 4" scuppers to tween bunkers are fitted with screw caps and no storm valves.
The overboard scuppers and discharge pipes draining spaces below the shelter deck have been fitted with non-return valves except the scuppers draining the tween deck bunkers which have been blanked off at the forward sides

Particulars of Side Scuttles: Side scuttles to crew space right forward and engineers quarters right aft are provided with hinged deadlights.
All scuttles are of substantial construction.

RETAIN

Particulars of Guard Rails:— Guard rails on weather deck all fore & aft (except a short length of bulwark at stern) 3'-6" high, having three rods and stanchions spaced 5'-0" apart.

Particulars of Gangways, Lifelines, etc.:—
Gangway fitted from midship deckhouse to after end (machinery casing top) with angle supports as per sketch spaced 10'-6" apart without fore & aft diagonals and having stanchions 3'-0" with 2 steel wires.
No gangway or lifelines fitted forward of midship house



Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	No bulwarks					
Forward Well						

State position of each freeing port ... ... (F. and A. position and height above deck edge) { After Well :— Forward Well :—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
~~Exposed Machinery Casings on Free-board or Raised Quarter Decks~~ ...								
Exposed Machinery Casings on Superstructure Decks	·46	·30	4" flange B. Space 3½"×3"×·44 E. Space	32" 30"	-	5'-0"×2'-0"	18"	7'-3"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓							
Deckhouses on Flush Deck Ships ...	·50	·34	5½"×3"×·34 T	30"	-	5'-0"×2'-0" 2'-6"×2'-0"	5'-3" 12½"	7'-6" on 4'-0" platform

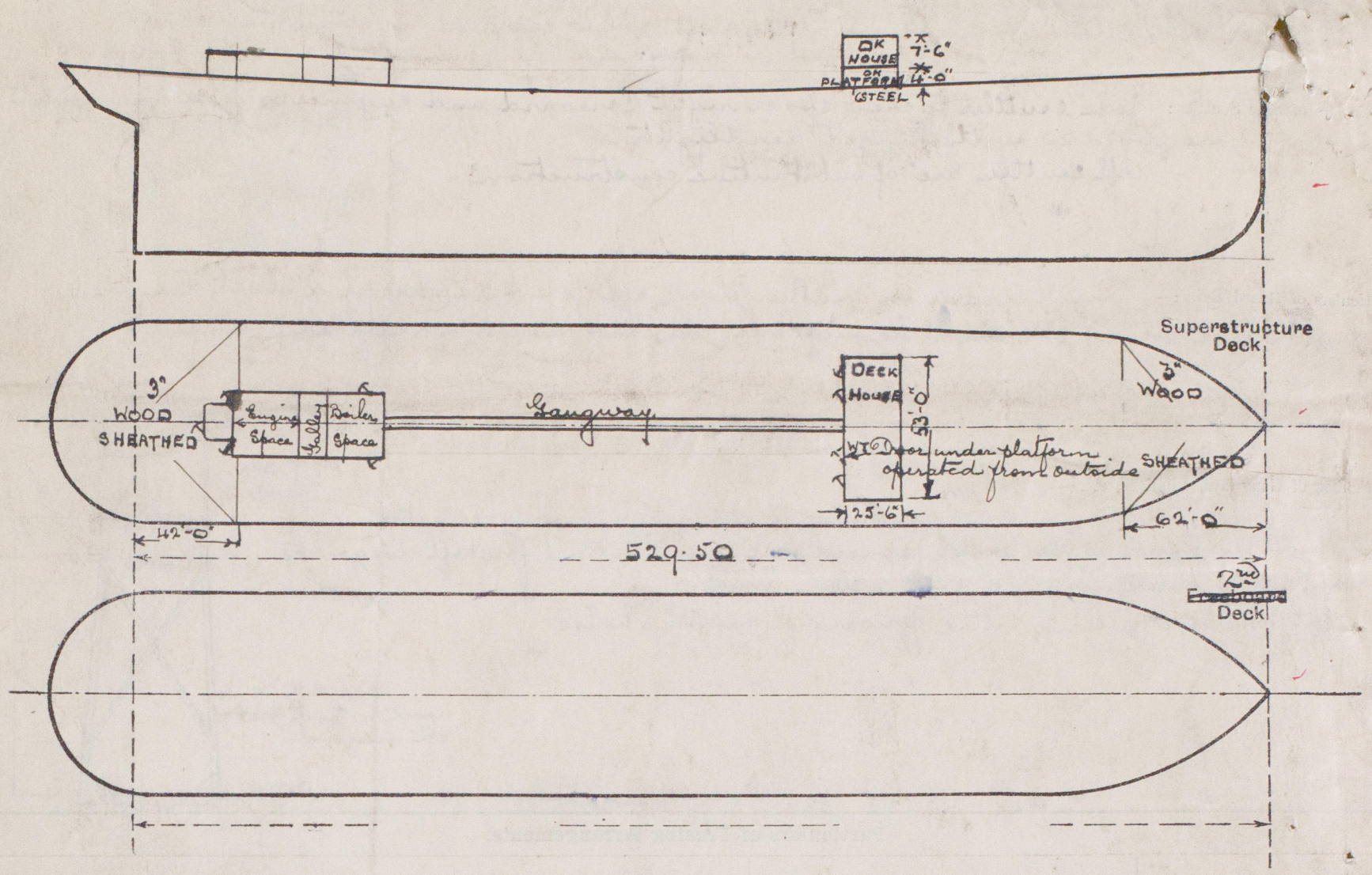
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Superstructure Decks	4 W.T. steel doors operated from both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	4 wood doors operated from both sides. 1 small W.T. door with clips hinged operated from outside

RETAIN
© 2021 Lloyd's Register Foundation

Cadillac

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches :—



State any special features in the construction of the ship :— Shelter deck with no tonnage opening.

Extreme Displacement in salt water 29'-0" draught = 23305 Tons
28'-0" " = 22428 "
27'-0" " = 21555

Tons per inch " " " 29'-0" " = 72·70 "
28'-0" " = 72·48 "
27'-0" " = 72·27 "

Summer draught = 30'-2½ to BK.

F.W.

Δ @ 30'-0" = 24187
2·5 × 72·92 = 182
Δ @ 30'-2½ = 24369

F.W allowance = $\frac{24369}{72.92 \times 40}$ = 8·35 = 8¼"

Builder's name and yard number Palmers Co. Ld.

Names of sister ships

Owners Anglo American Oil Co Ld

Fee £ 6 : 0 : 0 Received by me

a/ 29/2/52

© 2021 Lloyd's Register Foundation