

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

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Govt. Copy

Owners C11

Director +5662

Ship's Name <b>"DEXTEROUS"</b> (PADDLE TUG)	Official Number -	Nationality and Port of Registry BRITISH	Gross Tonnage 473	Date of Build 1956	Port of Survey GLASGOW.
Moulded Dimensions: Length 145.0' Breadth 30.0' Depth 15.06'					Date of Survey WHILE BUILDING.
Freeboard Length 145.42' TO CENTRE OF RUDDER STOCK.					Surveyor's Signature Geo. Cockburn.
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 995 tons					Particulars of Classification 7100 A.I. FOR TOWING *SALVAGE SERVICES (CONTEMPLATED)
Coefficient of fineness for use with Tables use .68 (Actual .624)					SCANTLINGS APPROVED FOR A SUMMER MLD DRAFT OF 12.75'

<p>(As measured 15.034)</p> <p>DEPTH FOR FREEBOARD (D).</p> <p>Moulded depth ... 15.06</p> <p>Stringer plate ... 32" ... .03</p> <p>Wood Sheathing on exposed deck</p> <p><math>T \left( \frac{L-S}{L} \right) = \frac{2.50}{12} \times \frac{46.25}{145.42} = .07</math></p> <p>Depth for Freeboard (D) = 15.16</p>	<p>DEPTH CORRECTION.</p> <p>(a) Where D is greater than Table depth (D-Table depth) R =</p> <p><math>(15.16 - 9.69) 1.119 = +6.51"</math></p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R =</p> <p>If restricted by superstructures</p>	<p>ROUND OF BEAM CORRECTION.</p> <p>Moulded Breadth (B) 30.0</p> <p>Standard Round of Beam = <math>\frac{B \times 12}{50} = 7.20</math></p> <p>Ship's Round of Beam <math>7\frac{1}{2}" = 7.50</math></p> <p>Difference + .30</p> <p>Restricted to</p> <p>Correction = <math>\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.30}{4} \times 1 = -.08"</math></p>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	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 ...					

NONE

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 =

NIL.

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate INCHES	Effective Ordinate	S M	Product
A.P. ...	24.54	1	24.54	15.13	15.13	1	15.13
$\frac{1}{8}L$ from A.P. ...	10.92	4	43.68	3.38	3.38	4	13.52
$\frac{2}{8}L$ " ...	2.70	2	5.40	0	0	2	0
Amidships ...	0	4	0	0	0	4	0
$\frac{2}{8}L$ from F.P. ...	5.40	2	10.80	0	0	2	0
$\frac{1}{8}L$ " ...	21.84	4	87.36	6.50	6.50	4	26.00
F.P. ...	49.08	1	49.08	43.00	43.00	1	43.00
Total ...			220.86				85.65

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

" " " = FLUSH DECK.

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{135.21}{18} \times .75 = +5.63"$

If limited on account of midship superstructure.

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

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 15.09

Summer freeboard = 4.02

Moulded draught (d) = 11.07

Keel allowance =

Extreme draught =

Deduction for Tropical free-

board and addition for =

Winter freeboard =  $\frac{d}{4}$  inches = 2.77 = 2.77

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

= 2.34

DRAFT (M<sup>10</sup>) DISP<sup>1</sup> (EXT) T.P.I.

12.6 977 9.08

13.0 1032 9.25

## TABULAR FREEBOARD

14.40 + (1.4542 x 1.5) corrected for Flush Deck (if required)

Correction for coefficient NIL.

Depth Correction ... 6.51

Deduction for superstructures ...

Sheer correction ... 5.63

Round of Beam correction ... .08

Correction for Thickness of Deck amidships ... .84

Other corrections (Soundings, etc.) ...

SILL OF LOWEST SIDE SCUTTLE 11' 7" ABOVE

TOP OF KEEL 52' 0" FROM OF AMIDSHIPS.

Summer Freeboard = 48.25

## SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, WOOD, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc Not assigned

Fresh Water Line " 2.34

Tropical Line " Not assigned

Winter Line below " NIL

Winter North Atlantic Line " Not assigned

Tropical Fresh Water Freeboard Not assigned

Fresh Water " 3.95

Tropical " Not assigned

Winter " 4.04

Winter North Atlantic " Not assigned



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.

Trade of ship TOWING & SALVAGE SERVICES.

Names of sister ships "DIRECTOR" (YARROW & COS NO 2088)

Builder's name and yard number YARROW & COS. YARD NO 2089.

Owners THE ADMIRALTY.

Fee £ 15 : 0 : 0

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

*PLANS AS FORWARDED FOR SISTER SHIP "DIRECTOR" ON 26/6/56. GLS. RPT. NO 85512.  
REQUEST 9, HEREWITH.*



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