

27 APR 1936

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

*now British and registered in London.*

Computation of Freeboard for *MOTOR* ~~Steamer~~ *Motor Ship* Tanker

having *Prop. bridge and funnel.*

Port of Survey *Hamburg*

Date of Survey *24th April 1936*

Name of Surveyor *H. Goring.*

Particulars of Classification *+100AA*  
*Carrying Petroleum in bulk*  
*hinged framing at bottom & deck.*

Ship's Name *"TARON"*

Nationality and Port of Registry *Sarawak*

Official Number *165348*

Gross Tonnage *8054*

Date of Build *1936*

Moulded Dimensions: Length *460* Breadth *59* Depth *34*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *17755* tons

Coefficient of fineness for use with Tables *.792*

Depth for Freeboard (D) *34*

Moulded depth ... *34*

Stringer plate ... *0.015*

Sheathing on exposed deck *0.07*

$T \left( \frac{L-S}{L} \right) =$  *✓*

Depth for Freeboard (D) = *34.07*

Depth correction *3.40*

(a) Where D is greater than Table depth  
(D-Table depth) R =  $(34.07 - 30.67) 3.00$   
 $= + 10.20$

(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) *59.00*

Standard Round of Beam =  $\frac{B \times 12}{50} = 14.16$

Ship's Round of Beam = *14*

Difference *Deficient .16*

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.16}{4} \times \frac{.5897}{.5905} = +.02$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed <i>at side</i>	<i>93.19</i>	<i>93.19</i>	<i>7'6"</i>	<i>✓</i>	<i>93.19</i>
" overhang ...	<i>none</i>				
R.Q.D. enclosed	<i>47.53</i>	<i>47.53</i>	<i>7'6"</i>	<i>✓</i>	<i>47.53</i>
" overhang	<i>none</i>				
Bridge enclosed <i>at side</i>	<i>48.00</i>	<i>48.00</i>	<i>7'6"</i>	<i>✓</i>	<i>48.00</i>
" overhang aft	<i>none</i>				
" overhang forward	<i>none</i>				
Forecastle enclosed	<i>48.00</i>	<i>48.00</i>	<i>7'6"</i>	<i>✓</i>	<i>48.00</i>
" overhang	<i>none</i>				
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>188.38</i>	<i>188.38</i>			<i>188.38</i>

Standard Height of Superstructure *7.50'*

" " R.Q.D. *✓*

Deduction for complete superstructure *42.00"*

Percentage covered  $\frac{S}{L} = 40.95\%$

"  $\frac{S_1}{L} = 40.95\%$

"  $\frac{E}{L} = 40.95\%$

Percentage from Table, Line A. Tanker *32.03*

(corrected for absence of forecastle (if required)) *31.75%*

Percentage from Table, Line B.  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction =  $42.00 \times \frac{.3203}{.3175} = - 13.42$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>56.00</i>	<i>1</i>		<i>56.00</i>	<i>56.00</i>	<i>56.00</i>	<i>1</i>		<i>56.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>24.72</i>	<i>4</i>		<i>99.68</i>	<i>25</i>	<i>25.00</i>	<i>4</i>		<i>100.00</i>
$\frac{2}{3}$ L " ...	<i>6.16</i>	<i>2</i>		<i>12.32</i>	<i>6.14</i>	<i>6.25</i>	<i>2</i>		<i>12.50</i>
Amidships ...	<i>✓</i>	<i>4</i>		<i>✓</i>	<i>0</i>	<i>✓</i>	<i>4</i>		<i>✓</i>
$\frac{2}{3}$ L from F.P. ...	<i>12.32</i>	<i>2</i>		<i>24.64</i>	<i>12.14</i>	<i>12.25</i>	<i>2</i>		<i>24.50</i>
$\frac{1}{2}$ L " ...	<i>49.84</i>	<i>4</i>		<i>199.36</i>	<i>49.44</i>	<i>49.75</i>	<i>4</i>		<i>199.00</i>
F.P. ...	<i>112.00</i>	<i>1</i>		<i>112.00</i>	<i>112</i>	<i>112.00</i>	<i>1</i>		<i>112.00</i>
Total ...				<i>504.00</i>					<i>504.00</i>

Mean actual sheer aft = *5 standard*

Mean standard sheer aft

Mean actual sheer forward = *5 standard*

Mean standard sheer forward

Length of enclosed superstructure forward of amidships = *Tanker*

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  *✓*

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 = *34.07*

Summer freeboard = *6.73*

Moulded draught (d) = *27.34*

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = *6.83 = 6 $\frac{3}{4}$* Addition for Winter North Atlantic Freeboard (if required) = *6.83 + 4.60 = 11 $\frac{1}{2}$* 

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$  *16900 (estimated)*

Tons per inch immersion at summer load water line

 $T =$  *56.8*Deduction =  $\frac{\Delta}{40T}$  inches $=$  *7.44* $=$  *7 $\frac{1}{2}$* 

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<i>10.20</i>	<i>5</i>
Deduction for superstructures ...	<i>13.42</i>	<i>5</i>
Sheer correction ...	<i>0.02</i>	<i>5</i>
Round of Beam correction ...	<i>0.02</i>	<i>5</i>
Correction for Thickness of Deck amidships ...	<i>0.02</i>	<i>5</i>
Other corrections, scantlings, etc. ...	<i>0.02</i>	<i>5</i>

Summer Freeboard = *80.9087*SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *W*, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<i>14<math>\frac{1}{4}</math></i>	Tropical Fresh Water Freeboard ...	<i>6<math>\frac{1}{8}</math></i>
Fresh Water Line " " ...	<i>7<math>\frac{1}{2}</math></i>	Fresh Water " " ...	<i>5<math>\frac{1}{2}</math></i>
Tropical Line " " ...	<i>6<math>\frac{3}{4}</math></i>	Tropical " " ...	<i>6<math>\frac{1}{4}</math></i>
Winter Line below " " ...	<i>6<math>\frac{3}{4}</math></i>	Winter " " ...	<i>6<math>\frac{1}{2}</math></i>
Winter North Atlantic Line " " ...	<i>11<math>\frac{1}{2}</math></i>	Winter North Atlantic " " ...	<i>7<math>\frac{3}{4}</math></i>

1 MAY 1936

# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Freeboard deck. Forecastle deck. Prop. deck.									
Description of Hatchway		27 hatchways to main cargo hold	Hatchway to fore peak space	Hatchway to oil bunker and upper tanks 8	Hatchway to dry cargo hold	Hatchway to forecastle	Hatchway to provision space		
Dimensions of Hatchway		3' x 4'	30' x 30'	24' x 18'	9' x 10'	30' x 30'	34' x 42'		
COAMINGS	Height above Deck	30"			30"				
	Thickness { Sides	3/8"	5' 7" x 3" x 1/8"	10 1/2' x 3 1/2' x 1/8"	3/8"		5' 6.3' x 3/8"		
	{ Ends	3/8"			3/8"				
	Stiffeners	none			none				
	Brackets, Stays	none			none				
HATCH BEAMS	Number	819							
	Spacing								
	Scantling and Sketch	none	none	none	none		none		
	Bearing Surface								
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch	none	none	none	none		none		
Bearing Surface									
HATCH COVERS	Material	Steel 1/2"	Steel 1/2"	Steel 1/2"	Steel 1/2"	Steel 7/16"	Steel 1/2"		
	Thickness								
	How fitted	hinged with hump	hinged with hump	paper packing	hump packing	hump packing	hump packing		
	Bearing Surface	packing - screw down	packing - screw down	3/4" bolts 4" apart.	screw down	screw down	screw down		
Spacing of Cleats						4 angle iron stiffeners 6' x 3' x 3/8"			
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 fiddle, funnel and ventilator coamings:— Fiddle top in height of boat deck. Engine casing top 30" above boat deck. Funnel and ventilator coamings efficiently riveted to the top plating. All openings fitted with hinged steel covers and screw down bolts.

Particulars of Flush Bunker Scuttles:—

none. ✓

Particulars of Companionways:— Companion aft to prop space strongly built of steel plates & angles, hinged steel door 26 1/2' x 59 1/2", sill 19" high, fitted with turnbuckles & hump packing, to be opened from both sides. Entrance to pump room in fore & aft well strongly built of steel plates & angles, hinged steel door 30' x 59 1/2", sill 19" high, fitted with turnbuckles & hump packing, to be opened from both sides. Entrance to pump room under forecastle fitted with hinged steel door 30' x 54 1/2", sill 24", fitted with turnbuckles & hump packing, to be opened from both sides.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

No ventilators in exposed position on freeboard deck. All ventilator coamings on forecastle, bridge and prop deck are 29" resp 36" above deck, thickness of coamings 7/16" x 1/8" thick. All ventilator coamings are fitted with screwed steel caps.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

All air pipes on freeboard and superstructure decks are of substantial construction and fitted with gauge and hinged steel covers.

Height:— Fore Deck 36"  
Prop 36"  
Foreward of foremast 8' above 1st Deck.  
After foremast 3' above 1st Deck.

Particulars of Gangway Cargo and Coaling Ports:—

none. ✓

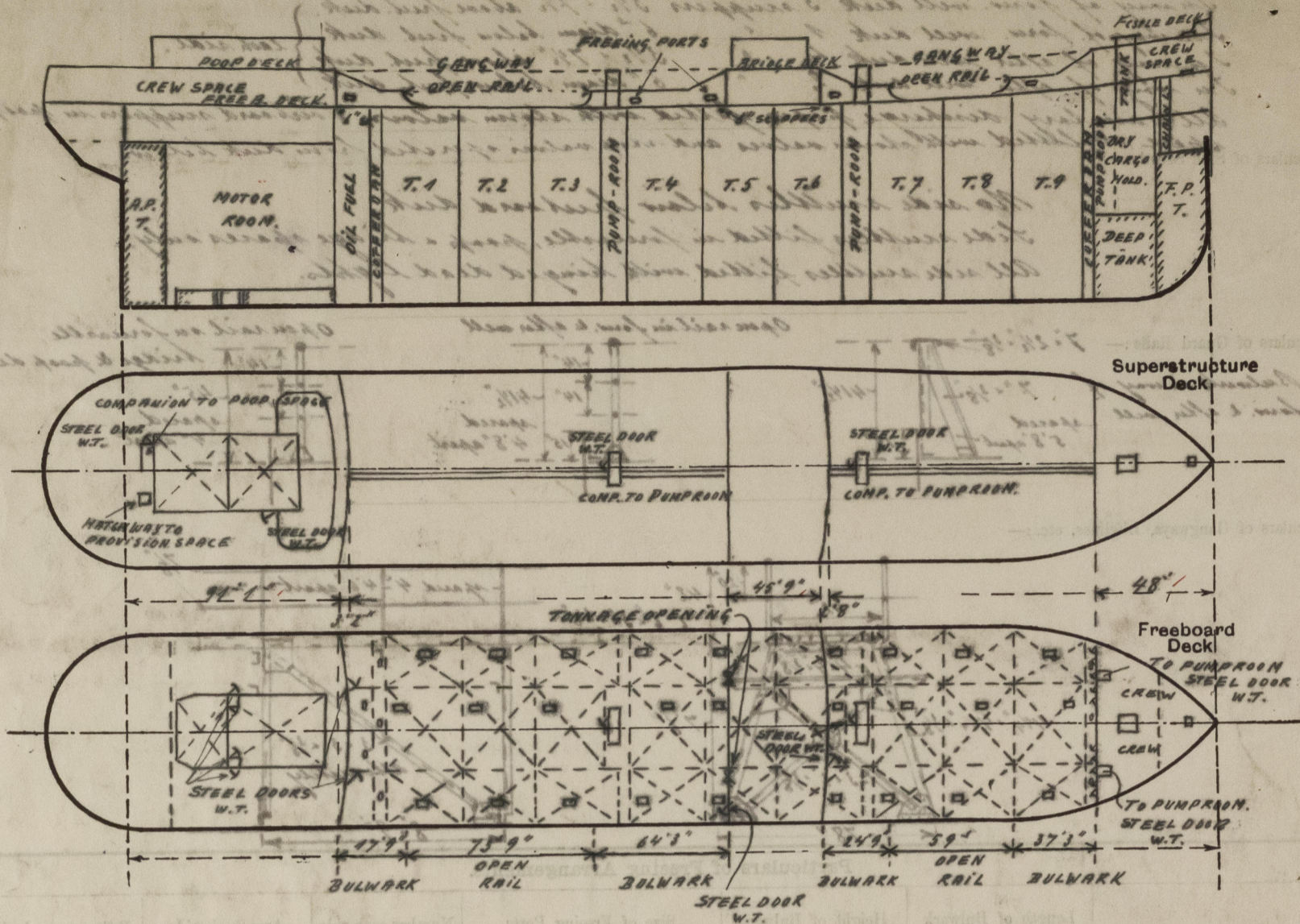


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



State any special features in the construction of the ship:— *Tanker with two longitudinal bulkheads.*  
*This vessel has been surveyed during construction on slacks and afloat.*

<u>Poop.</u>	91.08	<u>Bridge</u>	45.75
$\frac{2}{3} \times 3.17$	+ 2.11	$\frac{2}{3} \times 2.67$	+ 1.778
	<u>93.19</u>		<u>47.528</u>
	equiv.		53

Particulars	Length	Breadth	Depth	Area	Volume	Weight	Remarks
1	10.00	1.00	1.00	10.00	10.00	10.00	
2	10.00	1.00	1.00	10.00	10.00	10.00	
3	10.00	1.00	1.00	10.00	10.00	10.00	
4	10.00	1.00	1.00	10.00	10.00	10.00	
5	10.00	1.00	1.00	10.00	10.00	10.00	
6	10.00	1.00	1.00	10.00	10.00	10.00	
7	10.00	1.00	1.00	10.00	10.00	10.00	
8	10.00	1.00	1.00	10.00	10.00	10.00	
9	10.00	1.00	1.00	10.00	10.00	10.00	
10	10.00	1.00	1.00	10.00	10.00	10.00	
11	10.00	1.00	1.00	10.00	10.00	10.00	
12	10.00	1.00	1.00	10.00	10.00	10.00	
13	10.00	1.00	1.00	10.00	10.00	10.00	
14	10.00	1.00	1.00	10.00	10.00	10.00	
15	10.00	1.00	1.00	10.00	10.00	10.00	
16	10.00	1.00	1.00	10.00	10.00	10.00	
17	10.00	1.00	1.00	10.00	10.00	10.00	
18	10.00	1.00	1.00	10.00	10.00	10.00	
19	10.00	1.00	1.00	10.00	10.00	10.00	
20	10.00	1.00	1.00	10.00	10.00	10.00	
21	10.00	1.00	1.00	10.00	10.00	10.00	
22	10.00	1.00	1.00	10.00	10.00	10.00	
23	10.00	1.00	1.00	10.00	10.00	10.00	
24	10.00	1.00	1.00	10.00	10.00	10.00	
25	10.00	1.00	1.00	10.00	10.00	10.00	
26	10.00	1.00	1.00	10.00	10.00	10.00	
27	10.00	1.00	1.00	10.00	10.00	10.00	
28	10.00	1.00	1.00	10.00	10.00	10.00	
29	10.00	1.00	1.00	10.00	10.00	10.00	
30	10.00	1.00	1.00	10.00	10.00	10.00	
31	10.00	1.00	1.00	10.00	10.00	10.00	
32	10.00	1.00	1.00	10.00	10.00	10.00	
33	10.00	1.00	1.00	10.00	10.00	10.00	
34	10.00	1.00	1.00	10.00	10.00	10.00	
35	10.00	1.00	1.00	10.00	10.00	10.00	
36	10.00	1.00	1.00	10.00	10.00	10.00	
37	10.00	1.00	1.00	10.00	10.00	10.00	
38	10.00	1.00	1.00	10.00	10.00	10.00	
39	10.00	1.00	1.00	10.00	10.00	10.00	
40	10.00	1.00	1.00	10.00	10.00	10.00	
41	10.00	1.00	1.00	10.00	10.00	10.00	
42	10.00	1.00	1.00	10.00	10.00	10.00	
43	10.00	1.00	1.00	10.00	10.00	10.00	
44	10.00	1.00	1.00	10.00	10.00	10.00	
45	10.00	1.00	1.00	10.00	10.00	10.00	
46	10.00	1.00	1.00	10.00	10.00	10.00	
47	10.00	1.00	1.00	10.00	10.00	10.00	
48	10.00	1.00	1.00	10.00	10.00	10.00	
49	10.00	1.00	1.00	10.00	10.00	10.00	
50	10.00	1.00	1.00	10.00	10.00	10.00	
51	10.00	1.00	1.00	10.00	10.00	10.00	
52	10.00	1.00	1.00	10.00	10.00	10.00	
53	10.00	1.00	1.00	10.00	10.00	10.00	
54	10.00	1.00	1.00	10.00	10.00	10.00	
55	10.00	1.00	1.00	10.00	10.00	10.00	
56	10.00	1.00	1.00	10.00	10.00	10.00	
57	10.00	1.00	1.00	10.00	10.00	10.00	
58	10.00	1.00	1.00	10.00	10.00	10.00	
59	10.00	1.00	1.00	10.00	10.00	10.00	
60	10.00	1.00	1.00	10.00	10.00	10.00	
61	10.00	1.00	1.00	10.00	10.00	10.00	
62	10.00	1.00	1.00	10.00	10.00	10.00	
63	10.00	1.00	1.00	10.00	10.00	10.00	
64	10.00	1.00	1.00	10.00	10.00	10.00	
65	10.00	1.00	1.00	10.00	10.00	10.00	
66	10.00	1.00	1.00	10.00	10.00	10.00	
67	10.00	1.00	1.00	10.00	10.00	10.00	
68	10.00	1.00	1.00	10.00	10.00	10.00	
69	10.00	1.00	1.00	10.00	10.00	10.00	
70	10.00	1.00	1.00	10.00	10.00	10.00	
71	10.00	1.00	1.00	10.00	10.00	10.00	
72	10.00	1.00	1.00	10.00	10.00	10.00	
73	10.00	1.00	1.00	10.00	10.00	10.00	
74	10.00	1.00	1.00	10.00	10.00	10.00	
75	10.00	1.00	1.00	10.00	10.00	10.00	
76	10.00	1.00	1.00	10.00	10.00	10.00	
77	10.00	1.00	1.00	10.00	10.00	10.00	
78	10.00	1.00	1.00	10.00	10.00	10.00	
79	10.00	1.00	1.00	10.00	10.00	10.00	
80	10.00	1.00	1.00	10.00	10.00	10.00	
81	10.00	1.00	1.00	10.00	10.00	10.00	
82	10.00	1.00	1.00	10.00	10.00	10.00	
83	10.00	1.00	1.00	10.00	10.00	10.00	
84	10.00	1.00	1.00	10.00	10.00	10.00	
85	10.00	1.00	1.00	10.00	10.00	10.00	
86	10.00	1.00	1.00	10.00	10.00	10.00	
87	10.00	1.00	1.00	10.00	10.00	10.00	
88	10.00	1.00	1.00	10.00	10.00	10.00	
89	10.00	1.00	1.00	10.00	10.00	10.00	
90	10.00	1.00	1.00	10.00	10.00	10.00	
91	10.00	1.00	1.00	10.00	10.00	10.00	
92	10.00	1.00	1.00	10.00	10.00	10.00	
93	10.00	1.00	1.00	10.00	10.00	10.00	
94	10.00	1.00	1.00	10.00	10.00	10.00	
95	10.00	1.00	1.00	10.00	10.00	10.00	
96	10.00	1.00	1.00	10.00	10.00	10.00	
97	10.00	1.00	1.00	10.00	10.00	10.00	
98	10.00	1.00	1.00	10.00	10.00	10.00	
99	10.00	1.00	1.00	10.00	10.00	10.00	
100	10.00	1.00	1.00	10.00	10.00	10.00	

Builder's name and yard number. *Deutsche Werft A.G. No. 169.*  
Names of sister ships. *"Genta" Deutsche Werft A.G. No. 156, Bremer Vulkan Yard No. 722.*  
Owners. *Larwick Oilfields Camp Ltd.*  
No. *360.* Received by me *will be charged with First Entry.*



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