

No. 1770

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. *1614* No. in Register Book *2860*

S.S. " *DONGARTH* "

Makers of Engines *Smiths Dock Co Ltd*

Works No. *226*

Makers of Main Boilers *Newthome & Co Ltd*

Works No. *8649 ho 2.*

Makers of Donkey Boiler *✓*

Works No. *✓*

MACHINERY.



© 2021

Lloyd's Register
Foundation

009771-009779-0170

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

22nd February 1923

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ^{Single Triple} ~~Twin Quadruple~~ Screw ^{Tug} ~~Ship~~

"Dongarth"

Official No.

Port of Registry

Liverpool

Registered Owners

Rea Lawing & Co. Ltd.

Engines Built by

Smyth's Dock Co. Ltd.

at

South Bank-on-Sea.

Main Boilers Built by

Hawthorne Leslie & Co. Ltd.

at

Newcastle-on-Tyne.

Donkey

at

Date of Completion

12-22

First Visit 8-8-22

Last Visit 30-11-22

Total Visits

35

© 2021

Lloyd's Register
Foundation

RECIPROCATING ENGINES.

Works No. *226* No. of Sets *1* Description *Triple expansion.*
Surface condensing, Three cranks.

No. of Cylinders each Engine *3* No. of Cranks *3*
 Diars. of Cylinders *14" - 23" - 39"* Stroke *24"*
 Cubic feet in each L.P. Cylinder *18.6*

Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr?

" " " each Receiver?

Type of H.P. Valves,

" 1st I.P. "

" 2nd I.P. "

" L.P. "

" Valve Gear

" Condenser

Cooling Surface sq. ft.

Diameter of Piston Rods (plain part)

Screwed part (bottom of thread)

Material "

Diar. of Connecting Rods (smallest part)

Material

" Crosshead Gudgeons

Length of Bearing

Material

No. of Crosshead Bolts (each)

Diar. over Thrd.

Thirde. per inch

Material

" Crank Pin " "

"

"

"

" Main Bearings

Lengths

" Bolts in each

Diar. over Thread

Threads per inch

Material

" Holding Down Bolts, each Engine

Diar.

No. of Metal Chocks

Are the Engines bolted to the Tank Top or to a Built Seat?

Are the Bolts tapped through the Tank Top and fitted with Nuts Inside?

If not, how are they fitted?

Connecting Rods, Forged by

Piston " "

Crossheads,

Connecting Rods, Finished by

Piston " "

Crossheads,

Date of Harbour Trial

24-11-22

" Trial Trip

19-12-22

Trials run *in River Mersey.*

Were the Engines tested to full power under Sea-going conditions?

In River.

If so, what was the L.H.P.?

454

Revs. per min. *125*

Pressure in 1st I.P. Receiver, *54.6* lbs., 2nd I.P.,

lbs., L.P., *10.3* lbs., Vacuum, *25* ins.

Speed on Trial

10.69 knots

If the Conditions on Trial were such that full power records were not obtained give the following estimated

data:—

Builders' estimated L.H.P.

Revs. per min.

Estimated Speed



© 2021

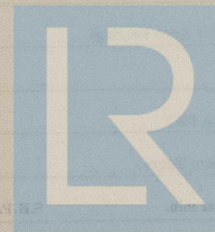
Lloyd's Register
Foundation

TURBINE ENGINES.

Works No.	Type of Turbines		
No. of H.P. Turbines	No. of I.P.	No. of L.P.	No. of Stern
Are the Propeller Shafts driven direct by the Turbines or through Gearing?			
Is Single or Double Reduction Gear employed?			
Diag. of 1st Reduction Pinion	} Width	Pitch of Teeth	
" 1st " Wheel		Date of Harbour Trial	
Estimated Pressure per lineal inch			
Diag. of 2nd Reduction Pinion	} Width	Pitch of Teeth	
" 2nd " Wheel		Date of Harbour Trial	
Estimated Pressure per lineal inch			
Revs. per min. of H.P. Turbines at Full Power		S.H.P.	
If the Conditions on Trial were such that full power records were not obtained give following estimated			
" " I.P. " "	Revs. per min.		
" " L.P. " "	Revs. per min.		
" " 1st Reduction Shaft	Revs. per min.		
" " 2nd " "	Revs. per min.		
" " Propeller Shaft	Revs. per min.		
Total Shaft Horse Power			
Date of Harbour Trial			
" Trial Trip			
Trials run at			
Speed on Trial	Knots.	Propeller Revs. per min.	S.H.P.
Turbine Spindles forged by			
" Wheels forged or cast by			
Reduction Gear Shafts forged by			
" Wheels forged or cast by			

TURBO ELECTRIC GENERATING MACHINERY. DESCRIPTION OF INSTALLATION.

No. of Turbo Generating Sets	Capacity of each
Type of Turbines employed	
Description of Generators	
No. of Motors driving Propeller Shafts	
Are the Propeller Shafts driven direct by the Motors or through Gearing?	
Is Single or Double Reduction Gear employed?	
Description of Motors	
Diag. of 1st Reduction Pinion	} Width
" 1st " Wheel	
Estimated Pressure per lineal inch	
Diag. of 2nd Reduction Pinion	} Width
" 2nd " Wheel	
Estimated Pressure per lineal inch	
Revs. per min. of Generators at Full Power	
" " Motors	
" 1st Reduction Shaft	
" 2nd " "	
" Propeller at Full Power	
Total Shaft Horse Power	
Date of Harbour Trial	
" Trial Trip	
Trials run at	
Speed on Trial	Propeller Revs. per min.
Turbine Spindles forged by	
" Wheels forged or cast by	
Reduction Gear Shafts forged by	
" Wheels forged or cast by	



© 2021

Lloyd's Register
Foundation

TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets Capacity of each

Type of Turbines employed

Description of Generators

No. of Motors driving Propeller Shafting

Are the Propeller Shafts driven direct by the Motors or through Gearing?

Is Single or Double Reduction Gear employed?

Description of Motors

Diam. of 1st Reduction Pinion	}	Width	Pitch of Teeth
" 1st " Wheel			

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion	}	Width	Pitch of Teeth
" 2nd " Wheel			

Estimated Pressure per lineal inch

Revs. per min. of Generators at Full Power

" Motors "

" 1st Reduction Shaft

" 2nd "

" Propellers at Full Power

Total Shaft Horse Power

Date of Harbour Trial

" Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revs. per min. S.H.P.

Makers of Turbines

" Generators

" Motors

" Reduction Gear

Turbine Spindles forged by

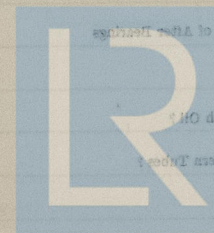
" Wheels forged or cast by

Reduction Gear Shafts forged by

" Wheels forged or cast by

DESCRIPTION OF INSTALLATION

No. of Couplings	At Mid Length	At Ends
Diam. of Pinion Circle		
No. of Lengths	Actual	
Diam. of Intermediate Shafting by Rains		
No. of Bolts, each Coupling		
Diam. of Propeller Shafts by Rains		
Are Propeller Shafts fitted with Continuous Friction Liners?		
Diam. over Liners		
Of what material are the After Bearings composed?		
Are Means provided for lubricating the After Bearings with Oil?		
Do the Propeller Shafts enter the Stern Tubes?		
Is the Water Tight?		



© 2021

Lloyd's Register
Foundation

SHAFTING.

Are the Crank Shafts Built or Solid?

No. of Lengths in each

Angle of Cranks

Diar. by Rule

Actual

In Way of Webs

" of Crank Pins

Length between Webs

Greatest Width of Crank Webs

J

Thickness

Least " "

Diar. of Keys in Crank Webs

Length

" Dowels in Crank Pins

Length

Screwed or Plain

No. of Bolts each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

Greatest Distance from Edge of Main Bearing to Crank Web

Type of Thrust Blocks

No. " Rings

Diar. of Thrust Shafts at bottom of Collars

No. of Collars

" " Forward Coupling

At Aft Coupling

Diar. of Intermediate Shafting by Rule

Actual

No. of Lengths

No. of Bolts, each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

Diar. of Propeller Shafts by Rule

Actual

At Couplings

Are Propeller Shafts fitted with Continuous Brass Liners?

Diar. over Liners

Length of After Bearings

Of what Material are the After Bearings composed?

Are Means provided for lubricating the After Bearings with Oil?

" " to prevent Sea Water entering the Stern Tubes?

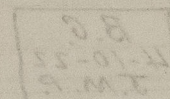
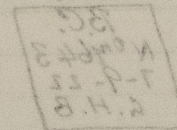
If so, what Type is adopted?

SKETCH OF CRANK SHAFT.

Material of Shafts
 Diameter of Shafts
 Length of Shafts
 Coefficient of Displacement of Vessel at 1000 lbs.
 Crank Shafts forged by
 Pins
 Webs
 Thrust Shafts
 Intermediate
 Propeller
 Thrust
 Intermediate
 Propeller

Handwritten: 1/2, 20, 1/2, 20

STAMP MARKS ON SHAFTS.



© 2021

Lloyd's Register
Foundation

No. of Blades each Propeller *Fitted or Solid*

Material of Blades

Boss

Diam. of Propellers

Pitch

Surface (each

S. ft.

Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth

Crank Shafts Forged by

Material

" Pins "

" Webs "

Thrust Shafts "

Interned. " "

Propeller " "

Crank " Finished by

Thrust " "

Interned. " "

Propeller " "

STAMP MARKS ON SHAFTS.

Crank Shaft.

B.C.
N^o 643
7-9-22
G. H. B

Thrust & Tail Shafts.

B.C.
4-10-22
J. M. P.

SKETCH OF PROPELLER SHAFT.

No. of Air Pumps
Worked by Main or Independent Engines
No. of Circulating Pumps
Type of
Diam. of
Location from Sea
Diam.
How each Pump is Driven (with No. of Main Valves)
What other Pumps can circulate through Condensers?
No. of Feed Pumps on Main Engines
Are Spring-loaded Relief Valves fitted to each Pump?
Can one Pump be overhauled while the others are at work?
No. of Independent Feed Pumps
Diam.
Stroke
What other Pumps can feed the Boilers?
No. of High Pumps on Main Engines
Can one Pump be overhauled while the others are at work?
No. of Independent Bilge Pumps
What other Pumps can draw from the Bilges?
Are all High Pumps fitted with Rovers?
Are the Valves, etc., arranged so as to prevent unintentional connection between Sea and Bilges?
Are all Sea Connections made with Valves on Bilge side?
Are they placed so as to be easily accessible?
Are the Pumps and Valves fitted to be operated from the Deep Load Room?
Are they fitted to the Bilge Pumping and easily accessible?
Are all Bilge Connections fitted with Rovers?
on the Outside?

2 1/2

4-10-22

© 2021

Lloyd's Register Foundation

SKETCH OF SHIP'S PUMPS, ETC.

No. of Air Pumps Diar. Stroke

Worked by Main or Independent Engines?

No. of Circulating Pumps Diar. Stroke

Type of "

Diar. of " Suction from Sea

Has each Pump a Bilge Suction with Non-return Valve?

What other Pumps can circulate through Condenser?

No. of Feed Pumps on Main Engine Diar. Stroke

Are Spring-loaded Relief Valves fitted to each Pump?

Can one Pump be overhauled while the others are at work?

No. of Independent Feed Pumps Diar. Stroke

What other Pumps can feed the Boilers?

No. of Bilge Pumps on Main Engine Diar. Stroke

Can one Pump be overhauled while the others are at work?

No. of Independent Bilge Pumps

What other Pumps can draw from the Bilges?

Are all Bilge Suctions fitted with Roses?

Are the Valves, etc., so arranged as to prevent unintentional connection between Sea and Bilges?

Are all Sea connections made with Valves or Cocks next the Ship's sides?

Are they placed so as to be easily accessible?

Are the Discharge Chests placed above or below the Deep Load Line?

Are they fitted direct to the Hull Plating and easily accessible?

Are all Blow-off Cocks or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges

on the Outside?

BOILERS

Works No.

No. of Boilers Type

Single or Double-ended

No. of Furnaces in each

Type of Furnaces

Date when first approved

Approved Working Pressure

Hydraulic Test Pressure

Date of Hydraulic Test

" when Safety Valves set

Pressure at which Valves were set

Date of Accreditation Test

Maximum Pressure under Accreditation Test

System of Drafting

Can Boilers be worked separately?

Number of Plates

Stay Bars

Hydro

No. of Furnaces

Greatest Internal Diam. of Boilers

" Length

Spigot Feet of Heating Surface and Water

" Grate

No. of Safety Valves fitted with Lifting Gear

Are the Safety Valves fitted with Lifting Gear

No. of Blow-off Cocks fitted with Spigots

Test Cocks



© 2021

Lloyd's Register
Foundation

BOILERS.

Works No. 8649 No. 2.
 No. of Boilers 1 Type *Cylindrical multitubular*
 Single or Double-ended *Single.*
 No. of Furnaces in each 3
 Type of Furnaces *Monison*
 Date when Plan approved 3-8-22
 Approved Working Pressure 200 lbs.
 Hydraulic Test Pressure 350
 Date of Hydraulic Test 10-10-22
 " when Safety Valves set 24-11-22
 Pressure at which Valves were set 205 lbs.
 Date of Accumulation Test 24-11-22
 Maximum Pressure under Accumulation Test 210 lbs.
 System of Draught *natural.*
 Can Boilers be worked separately? *yfs.*
 Makers of Plates *Ino. Spencer Lons.*
 " Stay Bars *do*
 " Rivets *R. B. & Hat Co. Ltd.*
 " Furnaces *James Marshall Co.*
 Greatest Internal Diam. of Boilers 14'-0" $\frac{13}{32}$
 " " Length " 11'-9"
 Square Feet of Heating Surface each Boiler 2126 $\frac{1}{2}$
 " " Grate " " 60 $\frac{1}{2}$
 No. of Safety Valves each Boiler 2 Rule Diam. Actual 3"
 Are the Safety Valves fitted with Easing Gear? *yfs.*
 No. of Pressure Gauges, each Boiler 2 No. of Water Gauges *one*
 " Test Cocks " 3 " Salinometer Cocks 1

Test Mark on Boiler

B. O.
 No 3910
 350 lbs.
 W. P. 200 lbs.
 H. N.
 10-10-22

Size of Compensation Rings
 Staked $\frac{7}{16}$ " Port $\frac{13}{32}$

Thickness of End Plates in Steam Space Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved Threads per Inch

" " " " " in Boilers "

Material of " " "

How are Stays Secured?

Diar. and Thickness of Loose Washers on End Plates

" " Riveted " "

Width " " Doubling Strips

Thickness of Middle Back End Plates Approved

" " " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Stays at " " "

Diar. of Stays Approved Threads per Inch

" " in Boilers "

Material "

Are Stays fitted with Nuts outside?

Thickness of Back End Plates at Bottom Approved

" " " " " in Boilers

Pitch of Stays at Wide Spaces between Fireboxes

Thickness of Doublings in " "

Thickness of Front End Plates at Bottom Approved

" " " " " in Boilers

No. of Longitudinal Stays in Spaces between Furnaces

Threads per Inch

Thickness of Stays Approved

" " " " " in Boilers

Material

Thickness of Front End Plates Approved

" " " " " in Boilers

Pitch of Stay Tubes at Spaces between Backs of Tubes

Thickness of Doublings in " "

Stay Tubes at " "

Are Stay Tubes fitted with Nuts at Front End?

Thickness of Back End Plates Approved

" " " " " in Boilers

Pitch of Stay Tubes in Back End Plates

Plain " "

Thickness of Stay Tubes

Plain " "

External Diam. of Tubes

Material

Thickness of Front End Plates Approved

" " " " " in Boilers

Smallest outside Diam. of Furnaces

Length between Tube Ends

Width of Compound Channels (front to back)

Thickness of Tubes

Thickness of Tubes

Thickness of Tubes

Thickness of Tubes

Thickness of Tubes

Thickness of Tubes



© 2021

Lloyd's Register
Foundation

Diar. of Stays Approved Threads per Inch

" " in Boilers

Material "

Thickness of Front Tube Plates Approved

" " " " in Boilers

Pitch of Stay Tubes at Spaces between Stacks of Tubes

Thickness of Doublings in " " "

" Stay Tubes at " "

Are Stay Tubes fitted with Nuts at Front End?

Thickness of Back Tube Plates Approved

" " " in Boilers

Pitch of Stay Tubes in Back Tube Plates

" Plain "

Thickness of Stay Tubes

" Plain "

External Diar. of Tubes

Material "

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diar. of Furnaces

Length between Tube Plates

Width of Combustion Chambers (Front to Back)

Thickness of " " Tops Approved

" " " in Boilers

Pitch of Screwed Stays in C.O. Tops

Threads per Inch

Diar. of Screwed Stays Approved

" " in Boilers

Material "

Thickness of Combustion Chamber Sides Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Sides

Diar. " Approved Threads per Inch

" " in Boilers

Material "

Thickness of Combustion Chamber Ends Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Ends

Diar. " Approved Threads per Inch

" " in Boilers

Material "

Are all Screwed Stays fitted with Nuts in C.O.?

Thickness of Combustion Chamber Bottom

No. of Girders over each Wing Girder

" " Centre

Depth and Thickness of Girders

Material of Girders

No. of Stays in each

© 2021

Lloyd's Register

Foundation

No. of Tubes each Girder

Size of Lower Main



Diag. of Screwed Stays Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Sides Approved

" " " in Boilers

Pitch of Screwed Stays in C.O. Sides

Diag. " " Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

" " " in Boilers

Pitch of Screwed Stays in C.O. Backs

Diag. " " Approved Threads per Inch

" " " in Boilers

Material " "

Are all Screwed Stays fitted with Nuts inside C.O.?

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

" " " Centre

Depth and Thickness of Girders

Material of Girders

No. of Stays in each

No. of Tubes, each Boiler

Size of Lower Manholes

Same as spec Carlgarth

VERTICAL DONKEY BOILERS

No. of Boilers

Type

Greatest Int. Diam.

Height of Boiler Crown above Fire Grate

Are Boiler Crowns Flat or Dished?

Internal Radius of Dished Boilers

Thickness of Boilers in Boiler Crowns

Diag. of River Boilers

Height of Firebox Crown above Fire Grate

Are Firebox Crowns Flat or Dished?

External Radius of Dished Crowns

No. of Crown Stays

Diag.

External Diag. of Firebox at Top

Thickness of Plates

No. of Water Tubes

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Compensating Ring

Boiling surface each Boiler

Diag. surface

SUPERHEATERS



© 2021
Lloyd's Register
Foundation

VERTICAL DONKEY BOILERS.

No. of Boilers	Type	
Greatest Int. Diar.		Height
Height of Boiler Crown above Fire Grate		
Are Boiler Crowns Flat or Dished?		
Internal Radius of Dished Ends		Thickness of Plates
Description of Seams in Boiler Crowns		
Diar. of Rivet Holes	Pitch	Width of Overlap
Height of Firebox Crowns above Fire Grate		
Are Firebox Crowns Flat or Dished?		
External Radius of Dished Crowns		Thickness of Plates
No. of Crown Stays	Diar.	Material
External Diar. of Firebox at Top	Bottom	Thickness of Plates
No. of Water Tubes	Ext. Diar.	Thickness
Material of Water Tubes		
Size of Manhole in Shell		
Dimensions of Compensating Ring		
Heating Surface, each Boiler		Grate Surface

SUPERHEATERS.

Description of Superheaters	
Where situated?	
Which Boilers are connected to Superheaters?	
Can Superheaters be shut off while Boilers are working?	
No. of Safety Valves on each Superheater	Diar.
Are " " fitted with Basing Gear?	
Date of Hydraulic Test	Test Pressure
Date when Safety Valves set	Pressure on Valves

MAIN STEAM PIPES

No. of Pipes	
Material	
Radius, Width or Diameter	
Internal Diar.	
Thickness	
How are Pipes secured?	
Date of Hydraulic Test	
Test Pressure	

No. of Pipes	
Material	
Radius, Width or Diameter	
Internal Diar.	
Thickness	
How are Pipes secured?	
Date of Hydraulic Test	
Test Pressure	



© 2021

Lloyd's Register
Foundation

Material

Brazed, Welded or Seamless

Internal Diar.

Thickness

How are Flanges secured ?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diar.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diar.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

4
Copper.
S. D. "
4 $\frac{1}{2}$ "
5-W.L.
braked.
26-11-22.
400 lbs

© 2021

Lloyd's Register
Foundation

No.	Type
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Makers

Working Pressure

Test Pressure

Date of Test _____

No.	Type
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
17	17
18	18
19	19
20	20
21	21
22	22
23	23
24	24
25	25
26	26
27	27
28	28
29	29
30	30
31	31
32	32
33	33
34	34
35	35
36	36
37	37
38	38
39	39
40	40
41	41
42	42
43	43
44	44
45	45
46	46
47	47
48	48
49	49
50	50
51	51
52	52
53	53
54	54
55	55
56	56
57	57
58	58
59	59
60	60
61	61
62	62
63	63
64	64
65	65
66	66
67	67
68	68
69	69
70	70
71	71
72	72
73	73
74	74
75	75
76	76
77	77
78	78
79	79
80	80
81	81
82	82
83	83
84	84
85	85
86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

Makers

Working Pressure

Test Pressure

Date of Test

Same as sps Carlgarth

© 2021

Lloyd's Register
Foundation

SPARE GEAR.

No. of Top End Bolts.	No. of Bot. End Bolts.	No. of Cylinder Cover Studs
" Coupling Bolts	" Main Bearing Bolts	" Valve Chest "
" Junk Ring Bolts	" Feed Pump Valves	" Bilge Pump Valves
" H.P. Piston Rings	" I.P. Piston Rings	" L.P. Piston Rings
" " Springs	" " Springs	" " Springs
" Safety Valve "	" " Five Bars	" Feed Check Valves
" Piston Rods	" Connecting Rods	" Valve Spindles
" Air Pump Rods	" Air Pump Buckets	" Air Pump Valves
" Cir. "	" Cir. "	" Cir. "
" Crank Shafts	" Crank Pin Bushes	" Crosshead Bushes
" Propeller Shafts	" Propellers	" Propeller Blades
" Boiler Tubes	" Condenser Tubes	" Condenser Ferrules

OTHER ARTICLES OF SPARE GEAR:—

© 2021

Lloyd's Register
Foundation

REFRIGERATORS.

No. of Machines	Capacity of each	No. of Compressors	No. of Cranks
Makers			
Description			
No. of Steam Cylinders, each Machine	No. of Compressors	No. of Cranks	
Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines or Independently			

System of Refrigeration

Insulation

Are Brine and other Regulating Valves placed so as to be accessible without entering the Insulated Spaces?

Are all Pipes, Air Trunks, &c., well secured and protected from risk of damage?

Are all Bilge, Sounding, and Air Pipes in Insulated Spaces properly insulated?

Are Thermometer Tubes so arranged that Water cannot enter and freeze in them?

Date of Test under Working Conditions

RESULTS OF TRIALS.

Articles of Spare Gear for Refrigerating Plant carried on board:—

© 2021

Lloyd's Register
Foundation

No. and Description of Dynamos

Makers of Dynamos

Capacity	Amperes, at	Volts,	Revol. per Min.
----------	-------------	--------	-----------------

Current Alternating or Continuous

Single or Double Wire System

Position of Dynamos

.. Main Switch Board

No. of Circuits to which Switches are provided on Main Switch Board

Particulars of these Circuits:—

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
Total No. of Lights		No. of Motors driving Fans, &c.					No. of Heaters
Current required for Motors and Heaters							

Are Cut-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits

On Aux. " " each Auxiliary Circuit

Wherever a Cable is reduced in size

To each Lamp Circuit

To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted

Are the Fuses of Standard Sizes ?

Are all Switches and Cut-outs constructed of Non-Inflammable Material?

Are they placed so as to be always and easily accessible?

Smallest Single Wire used. No.	S.W.G.	Largest. No.	S.W.G.
--------------------------------	--------	--------------	--------

How are Conductors in Engine and Boiler Spaces protected?

Saloons, State Rooms, &c., .. ?

What special protection is provided in the following cases?—

- (1) Conductors exposed to Heat or Damp
- (2) „ passing through Bunkers or Cargo Spaces
- (3) „ „ Deck Beams or Bulkheads

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables is unimpaired?

Are all Joints in accessible positions, none being made in Bunkers or Cargo Spaces?

Are all Hull Connections for Single-Wire Systems made with Screws of large Surface?

Are the Dynamos, Motors, Main and Branch Cables, so placed that the Compasses are not injuriously affected by them?

Have Tests been made to prove that this condition has been satisfactorily fulfilled?

Has the Insulation Resistance over the whole system been tested?

What does the Resistance amount to?

Ohms.

Is the Installation supplied with a Voltmeter?

" " " an Ampere Meter?

Date of Trial of complete Installation

Duration of Trial

Have all the requirements of Section 42 been satisfactorily carried out?

© 2021

Lloyd's Register
Foundation

GENERAL CONSTRUCTION.

Have the Machinery and Boilers been constructed in accordance with the requirements of the Rules and the

Approved Plans? *Yes.*

If not, give details of the points of difference, and state when these were sanctioned by the Chief

Surveyor: Are the Dynamometer Main and Branch Pipes so placed that the Compressor can

be tested by them?

Have Tests been made to prove that this condition has been satisfactorily fulfilled?

Has the Installation been made over the whole system been tested?

and so

What does the Resistance amount to?

Is the Installation supplied with a sufficient Volume?

as required by the Rules?

Date of Trial of complete Installation

Have all the requirements of Section 42 been satisfactorily carried out?

Are the Materials used in the Construction of Engines and Boilers, so far as could be seen, sound and

trustworthy? *Yes.*

Are the Workmanship throughout thoroughly satisfactory? *Yes.*

Are they placed so as to be accessible and ready for examination?

Is the above correctly describes the Machinery of the S.S.

as ascertained by *me* from personal examination

What special provision is provided in the following cases?

(1) Compressor to Main or Branch

(2) Working through Pipes or Valves

(3) Deck Boilers or Pipes

(4) Deck Boilers or Pipes

(5) Deck Boilers or Pipes

(6) Deck Boilers or Pipes

(7) Deck Boilers or Pipes

(8) Deck Boilers or Pipes

(9) Deck Boilers or Pipes

(10) Deck Boilers or Pipes

(11) Deck Boilers or Pipes

"Dougarts"

J. D. Stephenson
Engineer Surveyor to the British Corporation for the
Survey and Registry of Shipping.

Fees—

MAIN BOILERS.

H.S. *2126* Sq. ft. £ *14* : *4* : *5*

G.S. *60.5* " : :

DONKEY BOILERS.

H.S. *✓* Sq. ft. : :

G.S. *✓* " : :

£ : :

ENGINES.

L.P.C. *18.6* Cub. ft. £ *18* : *10* : *0*

£ : :

Testing, &c. ... : :

£ : :

Expenses ... : :

Total ... £ *32* : *14* : *5*

It is submitted that this Report be approved.

W. H. King
Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the

7th March 1923

Fees advised

Fees paid



© 2021

Lloyd's Register
Foundation

Secretary.

GENERAL ACCOUNT

H.S. 2120

H.S. 2120

H.S. 2120

H.S. 2120

Total

It is submitted that this Report is approved.

S. J. G. 1920

Total

Total



© 2021

Lloyd's Register
Foundation



© 2021

Lloyd's Register
Foundation



© 2021

Lloyd's Register
Foundation



© 2021

Lloyd's Register
Foundation