

No. 634

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 628 No. in Register Book 1155

S.S. "Beauverton"

Makers of Engines *North Eastern Marine
Engineering Co. Ltd*
Works No. 1813

Makers of Main Boilers *North Eastern Marine
Engineering Co. Ltd*
Works No. 1813

Makers of Donkey Boiler ✓

Works No. ✓

MACHINERY.



© 2020

Lloyd's Register
Foundation

002506-002514-0032

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

24th June 1908

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the *Steel Screw Steamer*
"Beaverton."

Port of Registry

Newcastle-on-Tyne.

Registered Owners

The Merchant-Shipbuilding Co. Ltd.

Surveyor's District

Newcastle

Date of Completion of Engines

6/6/8

" " "

Main Boilers

6/6/8

" " "

Donkey

6/6/8

Trial Run at

Whitley Bay

Date

7.6.8

First Visit

1-10-07

Last Visit

7.6.8

Total Number of Visits

43.

Lloyd's Register
Foundation

ENGINES.

Made by *North Eastern Marine Eng Co Ltd*
 at *Wallsend* Works No. *1813*
 Description *Direct-acting triple expansion S. C.*
 No. of Cylinders, each Engine *3* Diars. *14"-28"-46"* Stroke *33"*
 Cub. feet in each L.P. Cylr. *31.74* Revols. per Min. *87* I.H.P. *895*
 Pressure in I.P. Receiver at full Power *65* 2nd I.P. ☒ L.P. ☒
 Thickness of Metal in H. P. Cylr. *1* I.P. *1 1/8"* " ☒ " *1 1/4"*
 " " " " Liner *1* " ☒ " ☒ " ☒
 " " " " Valve Chest *1 1/8"* " *1 1/8"* " ☒ " *1 1/8"*
 Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.? *yes*
 " " " " each Receiver? *yes*
 Number of Bolts in H.P. Cylr. Cover *18* I.P. *18* 2nd I.P. ☒ L.P. *24*
 Eff. Diar. " " " *1 1/8* " *1 1/8* " ☒ " *1 1/8*
 Pitch " " " *4.18* " *6.5* " ☒ " *6.44*
 Type of H.P. Valves (Piston or Slide) *piston* " *slide* ☒ " *slide*
 " Valve Gear *Ordinary link motion*
 Diameter of Piston Rods (plain part) *4 1/4"* At Bottom of Thread *3.037*
 Makers " *Northumberland Forge* Material *I.S.*
 Diameter of Connecting Rods (smallest part) *4 1/2"* Material *Iron*
 Makers " " *Northumberland Forge*
 Diar. of Crosshead Gudgeons *5"* Length of Bearing *7"* Material *Iron*
 No. of Top End Bolts (each Rod) *2* Effective Diar. *2.28* Material *Steel*
 " Bot. " " *2* " *2.28* " "
 " Main Bearings *6* Lengths *8 1/4'*
 " Bolts in each *2* Effective Diar. *2.03* Material *Steel*

No. of Holding Down Bolts, each Engine *43* No. of Metal Checks *43*
 Diar. " " " *1 1/2" & 1 1/4"* Average Pitch *20"*
 Are the Engines bolted directly to the Tank Top? *yes, dry tank*
 Are the Bolts tapped through the Tank Top and fitted with Nuts inside? *yes*
 Date of Test of Tank by Water Pressure with Holding Down Bolts in place *No tank*

SKETCHES.



© 2020

Lloyd's Register
Foundation

SKETCHES.

SHAFTING.

Are Crank Shafts Built? *yes* No. of Lengths in each *3* Angle of Cranks *120*

Diar. of Crank Shafts by Rule ~~8.99~~ *9 1/2* Actual *9 1/2* Diar. in Way of Webs *10 1/4*

Makers of *Cammel Laird & Co.* Material *1. S.*

Diar. of Crank Pins *9 1/2* Diar. in Way of Web *9 1/2*

Makers of *Cammel Laird & Co.* Material *1. S.*

Width across Crank Webs at Centre of Shaft *19 3/4* Thickness *6*

" " Crank Pins *17 3/4* *6*

" " Narrowest part *17 3/4* *6*

Makers of Crank Webs *Cammel Laird & Co.* Material *1. S.*

Diar. or Breadth of Keys in Crank Webs *15/8* Length *4 1/2*

" of Dowel Pins in Crank Pins *1* Length *2 1/4* Screwed or Plain *plain*

No. of Bolts in each Coupling *6* Diar. at Mid Length *2 1/4* Diar. of Pitch Circle *14 1/2*

Material of Coupling Bolts

Crank Shafts Finished by *North Eastern Marine Eng Co Ltd.*

Greatest Distance from edge of Main Bearing to Crank Web *3/16*

Description of Thrust Blocks *horse shoe*

Number " " Rings *5*

Diar. of Thrust Shafts by Rule ~~8.99~~ *9 1/2* Actual (at bot. of Collars) *9 1/2* Over Collars *15 5/8*

" " at Forward Coupling *9 1/6* After Coupling *9*

No. of Thrust Collars *5* Thickness *2 1/2* Distance apart *3*

Thrust Shafts Forged by *Cammel Laird & Co.* Material *1. S.*

" Finished by *North Eastern Marine Eng Co Ltd.*

No tunnel shafting

Diar. of Intermediate Shafting by Rule *8.54* Actual *8.54*

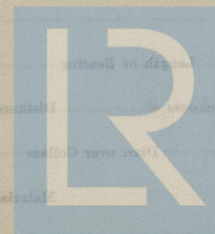
No. of Lengths, each Engine ☒

Diar. of Bearings ☒ Length ☒ Distance apart ☒

No. of Bolts, each Coupling ✓
 Intermediate Shafts Forged by ✓
 Finished by ✓
 Diar. of Propeller Shafts by Rule ~~10.09~~ ^{18.14} Actual ^{10 1/4"} At Couplings ^{9 1/2"}
 Are Propeller Shafts fitted with Continuous Brass Liners? ^{yes}
 Diar. over Liners ^{11 3/8"} Length of After Bearings ^{3' 11"}
 Of what Material are the After Bearings composed? ^{lignum vitae}
 Distance from After Bearing in Stern Tube to nearest ~~Forward~~ Bearing ^{10' 9"}
 Are the After Bearings lubricated with Oil or Sea Water? ^{Sea water}
 What means are adopted to prevent Sea Water entering the Stern Tubes? ^{none}
 Propeller Shafts Forged by ^{Northumberland Forge} Material ^{Iron}
 Finished by ^{North Eastern Marine Eng}
 C^o: Ltd Wallsend.
 No. of Propellers ^{One} Diar. ^{12' 0"} Pitch ^{14' 0"}
 Blades, each Propeller ⁴ Fitted or Solid ^{fitted}
 Material of Blades ^{cast iron} Boss ^{cast iron}
 Surface, each Propeller ^{48' 5"} Diar. of Propeller ^{16' 02"}
 Rule Diar. of Crank Shaft = ⁴⁷⁶ 795 ✓
 Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth

TUSHOTES

No. of H.P. Turbines
 No. of A.S.P. Turbines
 Horse Power
 Material
 Length of Blades in H.P. Turbines
 No. of Rows of Blades of each Length
 Pitch of
 Material of A.S.P. Turbine Frames
 Length of Blades in A.S.P. Turbines
 No. of Rows of Blades of each Length
 Pitch of
 Material of A.S.P. Turbine Frames
 Length of Blades in A.S.P. Turbines
 No. of Rows of Blades of each Length
 Pitch of
 Material of A.S.P. Turbine Frames



© 2020

Lloyd's Register
Foundation

TURBINE ENGINES.

Type

No. of H.P. Turbines

No. of L.P. Turbines

No. of Astern „

How arranged

Revs. per Min.

Horse Power

Diam. of H.P. Turbine Drums

MATERIAL

THICKNESS OF METAL

Material of H.P. Turbine Casings

Lengths of Blades in H.P. Turbines

No. of Rows of Blades of each Length

Pitch of „ „ „

Diam. of L.P. Turbine Drums

MATERIAL

THICKNESS OF METAL

Material of L.P. Turbine Casings

Lengths of Blades in L.P. Turbines

No. of Rows of Blades of each Length

Pitch of „ „ „

Diam. of Astern Turbine Drums

MATERIAL

THICKNESS OF METAL

Material of Astern Turbine Casings

Lengths of Blades in Astern Turbines

No. of Rows of Blades of each Length

Pitch of „ „ „

Diam. of Turbine Spindles

Length of Bearing

No. of Thrust Collars on each Spindle

Thickness

Distance apart

Diam. of Spindles at Bottom of Collars

Diam. over Collars

Spindles Forged by

Material

„ Finished by

SKETCHES.



© 2020

Lloyd's Register
Foundation

[illegible]

PUMPS, Etc

No. of Air Pumps *one* Diar. *14"* Stroke *16½"*
 Type of *Edwards Patent*
 Diar. of Air Pump Rod *2½"* Material *gunny metal*
 How are Air Pumps Worked? *off main engines*

No. of Centrifugal Circulating Pumps *one* Maker *Watson & Co*
 „ Reciprocating „ „ ✓ Diar. ✓ Stroke ✓
 Diar. of Circulating Pump Rods ✓ Material ✓
 How are Circulating Pumps Worked? *by direct-coupled single cylinder engine*
 Diar. of Circulating Pump Suction from Sea *4"*
 Has each Circulating Pump a Bilge Suction with Non-return Valve? *yes* Diar. *5"*

No. of Feed Pumps on each Engine *2* Diar. *3* Stroke *16½"*
 Where do they pump from? *hotwell*
 „ „ discharge to? *main Boilers.*
 Are Spring-loaded Relief Valves fitted to each Pump? *yes*
 Can one Pump be overhauled while the others are at work? *yes*

No. of Bilge Pumps on each Engine *2* Diar. *3* Stroke *16½"*
 Where do they pump from? *all bilges*
 „ „ discharge to? *overboard*
 Can one Pump be overhauled while the others are at work? *yes*

No. of Bilge Injections connected to Condensers ✓ Diar. ✓
 Are all Bilge Suctions fitted with Roses? *yes*
 Are the Valves, Cocks, and Pipes so arranged as to prevent unintentional connection between Sea and Bilges? *yes*

Are all Sea Connections made with Valves or Cocks fitted direct to the Hull Plating? *yes*

Are they placed so as to be easily seen and accessible? *yes*

Are the Discharge Chests placed above the Deep Load Line? *yes*

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

Are all Blow-off Cocks or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges on the outside? *yes*

Main BOILERS.

Boilers made by *North Easter Marine Eng Co Ltd*
 " at *Wallsend*
 Works No. *1813*
 Date when Plan approved *26-10-07*
 Boiler Plates, Iron or Steel *Steel*
 Makers of Shell Plates *J. Spencer & Sons Newburn*
 " Internal Plates " " "
 " Furnaces *Deightons Pat. Flue Co Leeds*
 " Stay Bars *J. Spencer & Sons, Newburn*
 " Rivets *J. Miller & Co Glasgow*
 Material tested by (B.C., B.T., etc.) *B.C & B.T.*
 No. of Boilers *Two*
 Single or Double-ended *Single ended*
 No. of Furnaces, each Boiler *Two*
 Type of Furnaces *Deightons Patent corrugated*
 Approved Working Pressure *185 lbs*
 Hydraulic Test Pressure *370 lbs*
 Date of Hydraulic Test *1st Boiler 30-3-08, 2nd Boiler*
 " when Safety Valves set *14-5-08*
 Pressure on Valves *185 lbs*
 Date of Steam Accumulation Test *14-5-08*
 Max. Pressure under Accumulation Test *193 lbs*
 System of Draught *Natural*
 Can Boilers be worked separately? *yes*
 Greatest inside Diam. of Boilers *11' 9 ¹³/₁₆"*
 " " Length " *10' 9 ⁷/₈"*
 Square Feet of Heating Surface, each Boiler *1354*
 " Grate " " *39*



© 2020

Lloyd's Register
Foundation

Main Boilers

No. of Safety Valves, each Boiler 2
 Diam. " " " 2 1/2"
 Area " " " 4.9
 Are the Valves fitted with Easing Gear? yes
 No. of Pressure Gauges, each Boiler one & one in Eng Room
 " Water " " one
 " Test Cocks, " three
 " Salinometer Cocks, " one
 Are Water Gauge Pillars attached by Pipes to Steam and Water Spaces? no direct
 Are these Pipes connected to Boilers by Cocks or Valves? ✓
 Are Blow-off Cocks or Valves fitted on Boiler Shells? cocks
 No. of Strakes of Shell Plating in each Boiler one
 " Plates in each Strake Two
 Thickness of Shell Plates by Rule 15.65"
 " " Approved 1 3/32"
 " " in Boilers 1 3/32"
 Are the Rivet Holes Punched or Drilled? Drilled
 Are Rivets Iron or Steel? Steel
 Are the Longitudinal Seams Butt or Lap Joints? Butts
 Are the Double Butt Straps of equal width? yes
 Thickness of outside Butt Straps 1"
 " inside " 1"
 Are Longitudinal Seams Hand or Machine Riveted? machine
 Are they Single, Double, or Treble Riveted? Treble riveted
 Diam. of Rivet Holes 1 5/32"
 Pitch " 8"
 Width of Overlap 14"
 Percentage of Strength in Longitudinal Seams 85.5%



© 2020

Lloyd's Register
Foundation

No. of Rows of Rivets in Centre Circumferential Seams ✓

Are these Seams Hand or Machine Riveted? ✓

Diam. of Rivet Holes ✓

Pitch " ✓

Width of Overlap ✓

No. of Rows of Rivets in End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes

Pitch "

Width of Overlap

Size of Manholes in Shell End

Dimensions of Compensating Rings

Thickness of End Plates in Steam Space by Rule

" " " " " Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Eff. Diam. " " " by Rule

" " " " " Approved

" " " " " in Boilers

Material of, " "

How are Stays Secured?

Diam. and Thickness of Loose Washers on End Plates

" " Riveted " " " ✓

Width " " Doubling Strips " " " ✓

Thickness of Middle Back End Plate by Rule ✓

" " " " " Approved ✓

" " " " " in Boilers ✓



© 2020

Lloyd's Register
Foundation

Thickness of Doublings in Wide Spaces between Fireboxes ✓

Pitch of Stays at " " " " ✓

Eff. Diar. of Stays by Rule ✓

" " " Approved ✓

" " " in Boilers ✓

Material " ✓

Are Stays fitted with Nuts outside? ✓

Thickness of Back End Plates at Bottom by Rule $\frac{29}{32}$

" " " " " Approved "

" " " " " in Boilers "

Pitch of Stays at Wide Spaces between Fireboxes *Three 2" stays around mantle.*

Thickness of Doublings in " $\frac{4}{16}$

Thickness of Front End Plates at Bottom by Rule $\frac{10.8}{16}$

" " " " " Approved 1"

" " " " " in Boilers "

No. of Long. Stays in Spaces between Furnaces *One in each wing*

Eff. Diar. of Stays by Rule $\frac{1.85}{16}$

" " " " Approved $\frac{1.858}{16}$

" " " " in Boilers "

Material of " *Steel*

Thickness of Front Tube Plates by Rule $\frac{15.05}{16}$

" " " " Approved 1"

" " " " in Boilers "

Pitch of Stay Tubes at Spaces between Stacks of Tubes $10\frac{3}{4} \times 4\frac{1}{2}$ centres

Thickness of Doublings in " " " $\frac{11}{16}$

" Stay Tubes at " " " $8\frac{1}{4}$ & $5\frac{1}{16}$ alternate.

Are Stay Tubes fitted with Nuts at Front End?

Thickness of Back Tube Plates by Rule

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 by Rule

Approved " " "

" " " in Boilers " " "

Smallest outside Diar. of Furnaces

Length between Tube Plates

Width of Combustion Chambers (front to back)

Thickness of " " " Top by Rule

Approved " " "

" " " in Boilers " " "

Pitch of narrow stays in C.C. Tube

" " " by Rule

Approved " " "

" " " in Boilers " " "



© 2020

Lloyd's Register
Foundation

Are Stay Tubes fitted with Nuts at Front End?

no

Thickness of Back Tube Plates by Rule

$$\frac{10.4}{16}$$

$$\frac{3}{4}$$

Approved

in Boilers

Pitch of Stay Tubes in Back Tube Plates

$$9 \times 9$$

$$4 \frac{1}{2} \times 4 \frac{1}{2}$$

Plain

Thickness of Stay Tubes

$$\frac{3}{8} \text{ " } \& \text{ " } \frac{5}{16}$$

Plain

$$8 \text{ B.W.G}$$

External Diar. of Tubes

$$3 \frac{1}{4}$$

Material

Iron

Thickness of Furnace Plates by Rule

$$\frac{8.65}{16}$$

$$\frac{9}{16}$$

Approved

in Boilers

Smallest outside Diar. of Furnaces

$$3' 5 \frac{7}{8}$$

Length between Tube Plates

$$4' 4 \frac{1}{4}$$

Width of Combustion Chambers (Front to Back)

$$30$$

$$\frac{10.9}{16}$$

Thickness of Tops, by Rule,

$$\frac{11}{16}$$

Approved

in Boilers

Pitch of Screwed Stays in C.C. Tops

$$9 \frac{1}{4} \times 9$$

$$1.5 \frac{1}{4}$$

Diar. by Rule

$$1 \frac{3}{4} \times 1.6$$

Approved

in Boilers

$$1.6$$

Material

Steel

Thickness of Combustion Chamber Sides by Rule

$$\frac{10.9}{16}$$

Thickness of Combustion Chamber Sides by Rule

Approved

in Boilers

Thickness of Furnace Plates by Rule

Approved

in Boilers

Thickness of Stay Tubes by Rule

Approved

in Boilers

Thickness of Back Tube Plates by Rule

Approved

in Boilers

Thickness of Furnace Plates by Rule

Approved

in Boilers

Thickness of Stay Tubes by Rule

Approved

in Boilers

Thickness of Back Tube Plates by Rule

Approved

in Boilers

Thickness of Furnace Plates by Rule

Approved

in Boilers

Thickness of Stay Tubes by Rule

Approved

in Boilers

Thickness of Back Tube Plates by Rule

Approved

in Boilers



© 2020

Lloyd's Register
Foundation

Thickness of Combustion Chamber Sides Approved

 $\frac{11}{16}$

" " " " in Boilers

Pitch of Screwed Stays in C.C. Sides

 $9\frac{1}{4} \times 9"$

Eff. Diar. " " by Rule

 $1.54"$

" " " Approved

 $1\frac{3}{4} \times 1.6"$

" " " in Boilers

Material " "

Steel

Thickness of Combustion Chamber Backs by Rule

 $\frac{10.95}{16}$

" " " Approved

 $\frac{11}{16}$

" " " in Boilers

Pitch of Screwed Stays in C.C. Backs

 $10" \times 8\frac{1}{4}"$

Eff. Diar. " " by Rule

 $1.5" \quad 1.72" \quad 1.85"$

" " " Approved

 $2", \quad 1\frac{7}{8}" \quad \& \quad 1\frac{3}{4}"$

" " " in Boilers

 $1.85 \quad 1.73 \quad 1.6$

Material " "

Steel

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

yes
1

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

Four

" " " Centre " ✓

Depth and Thickness of Girders

 $8\frac{1}{2} \times 3\frac{3}{4}"$ double

Material of Girders

Steel

No. of Stays in each

Two

No. of Stay Tubes, each Boiler

64

" " Plain " " "

108

Size of lower Manholes

 $16" \times 12"$

VERTICAL DONKEY BOILERS

If the Donkey Boilers are Vertical the following particulars should be stated in addition to those on

previous pages applicable to such Boilers:—

Type of Boiler

Height of Boiler Crown above Fire Grate

Are Boiler Crowns Flat or Dished?

Internal Radius of Dished Ends

Positioning of Stays in Boiler Crowns

Pitch of Stays

Width of Overlap

Height of Firebox Crown above Fire Grate

Are Firebox Crowns Flat or Dished?

External Radius of Dished Crowns

No. of Crown Stays

Effective Diar.

External Diar. of Firebox at Top

No. of Water Tubes

Material of Water Tubes

No. of Screwed Stays in Firebox Sides

Material

Are they fitted with Nuts inside?

Outside?

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 Superheaters

Are they fitted with lifting lugs?

Test pressure

Date when safety valves set



© 2020

Lloyd's Register
Foundation

VERTICAL DONKEY BOILERS. ✓

If the Donkey Boilers are Vertical the following particulars should be stated in addition to those on previous Pages applicable to such Boilers:—

Type of Boilers

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

Effective Diar.

Material

External Diar. of Firebox at Top

Bottom

Thickness of Plates

No. of Water Tubes

Int. Diar.

" "

Material of Water Tubes

No. of Screwed Stays in Firebox Sides

Eff. Diar.

Material

Are they fitted with Nuts inside?

Outside?

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 Superheaters

Diar.

Area

Are " " fitted with Easing Gear?

Date of Hydraulic Test

Test Pressure

Date when Safety Valves set

Pressure on Valves

SKETCHES: I AM

2
Copper
2 1/2
8 1/4
10-3084-8-01
4000 lbs

No. of Location
Material
Placed, Welded, or Seamed
Internal Diar.
Thickness of Plates
How are Flanges Secured?
Date of Hydraulic Test
Test Pressure

REFRIGERATORS

No. of Machines
Description
When any part of the Vessel is to be used for the purpose of Refrigeration the following particulars should be stated:—
Total (Gross Capacity of Refrigerated Space
Nature, Construction, Thickness, &c., of Insulation
Weight, Location, &c., of Condenser
Kind of Fluid or Medium used
Kind of Motor used, &c., &c.

Are all Pipes, Air Tanks, &c., well secured and protected from risk of damage?
Are all Pipe Joints, Connections, and Air Pipes in insulated spaces properly insulated?
Are Thermometer Tubes so arranged that Water cannot enter and freeze in the Tubes?
Are Safety Valves fitted on any of the Bulkheads of insulated spaces?



© 2020

Lloyd's Register
Foundation

MAIN STEAM PIPES.

No. of Lengths	2	2		
Material	Copper	Copper		
Brazed, Welded, or Seamless	Solid drawn	Solid drawn		
Internal Diam.	3 3/4"	3 3/4"		
Thickness	4 w.g.	6 w.g.		
How are Flanges Secured?	Brazed	Brazed		
Date of Hydraulic Test	13-3-08	4-5-08		
Test Pressure	400 lbs	400 lbs		

REFRIGERATORS. ✓

No. of Machines Makers

Description

When any part of the Vessel is to be used for the Carriage of Refrigerated Cargo the following particulars should be stated:—

Total Cubic Capacity of Refrigerated Spaces

Nature, Construction, Thickness, &c., of Insulation

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

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

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

Are Sluice Valves fitted on any of the Bulkheads of Insulated Spaces?

Are these fitted with Brass Non-return Valves?

Are they always accessible?

Are the Bilges and Bilge Rose Boxes always accessible?

Are the Steam Suctions to Bilges fitted with Non-return Valves?

Is the Machine Room effectively separated from Insulated Spaces?

" " properly Ventilated and Drained?

No. of Steam Cylinders, each Machine

Diars.

" Compressors, "

Diar. of Crank Shafts

No. of Cranks

Give particulars of Pumps in connection with Refrigerating Plant, and state whether worked by

Refrigerating Machines or independently

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

Date of Test under Working Conditions

Fall of Temperature in Insulated Spaces

Time required to obtain this Result

Articles of Spare Gear for Refrigerating Plant carried on board



© 2020

Lloyd's Register
Foundation

SKETCHES.

ELECTRIC LIGHTING.

Installation Fitted by *Messrs Siemens Bros. Newcastle*
 No. and Description of Dynamos *One compound wound*
 Makers of Dynamos *Messrs Siemens Bros*
 Capacity " *Amperes, at 110 Volts, 575 Revols. per Min.*
 Current Alternating or Continuous *continuous*
 Position of Dynamos *Top platform in Engine Room*
 " Main Switch Board " " " " "
 No. of Circuits to which Switches are provided on Main Switch Board *12*

Particulars of these Circuits:—

No. of Circuit.	Name of Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
1	Stoke Rooms	13	16	6.76	7/20	965	100%	600 meg
2	Newcastle	10	"	5.2	"	745	"	"
3	Navigation	6	"	3.12	"	446	"	"
4	Dining Room	14	"	7.28	"	1040	"	"
5	Engine Room	9	"	4.68	"	670	"	"
6	Berths	14	"	7.28	"	1040	"	"
7	Deck Lights	8	"	4.16	"	595	"	"
8	Forward Cargo	8	"	4.16	"	"	"	"
9	Mid "	8	"	4.16	"	"	"	"
10	Aft "	8	"	4.16	"	"	"	"
11	Eng Room	12	"	6.24	"	890	"	"
12	Stokehold	10	"	5.2	"	745	"	"
	Spare	-						

Total No. of Lights *112* No. of Motors driving Fans, &c. " No. of Heaters "
 Current required for Motors and Heaters

© 2020

Lloyd's Register
Foundation

Positions of Auxiliary Switch Boards, with No. of Switches on each

No 1 in Forecastle 6 DP. No 2 in Forecastle Hall
5 DP. No 3 in Pilot House 6 DP. No 4 in
Pantry 5 DP. No 6 in after deck house 5 DP.
No 7 direct. No 8 direct. No 9 direct.
No 10 in Engine Room 4 DP. No 11 in
Engine Room 4 DP.

Location of Switch Board	No. of Switches	No. of Circuits	No. of Wires	No. of Fuses	No. of Cables	No. of Conduits	No. of Pipes	No. of Valves	No. of Fittings	No. of Other
Forecastle	6	10	10	10	10	10	10	10	10	10
Pilot House	6	10	10	10	10	10	10	10	10	10
Pantry	5	10	10	10	10	10	10	10	10	10
After Deck House	5	10	10	10	10	10	10	10	10	10
Engine Room	4	10	10	10	10	10	10	10	10	10
Engine Room	4	10	10	10	10	10	10	10	10	10

Are Cut-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits

yes

On Aux. " " each Auxiliary Circuit

yes

Wherever a Cable is reduced in size

yes

To each Lamp Circuit

yes

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

yes

Are the Fuses of Standard Sizes?

yes

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

yes

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

yes

Smallest Single Wire used, No. 18 S.W.G., Largest, No. 18 S.W.G.

How are Conductors in Engine and Boiler Spaces protected? insulated rubber & tubes

" " Saloons, State Rooms, &c., " " " & lead covers

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp Insulated rubber & tubes

(2) " " passing through Bunkers or Cargo Spaces " " "

(3) " " Deck Beams or Bulkheads lead bushes

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

no joints

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

no joints

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

double wire

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

yes

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

yes

Has the Insulation Resistance over the whole system been tested?

yes

What does the Resistance amount to?

500,000

Ohms

Is the Installation supplied with a Voltmeter?

yes

" " " an Ampere Meter?

yes

Date of Trial of complete Installation

3/6/08

Duration of Trial

6 hours



©2020

Lloyd's Register Foundation

EVAPORATORS.

No.	Type	Tons per Hr.	Date of Test
Makers			
Working Pressure	Test Pressure		
Date of Test of Safety Valves under Steam			

FEED WATER HEATERS.

No.	one	Type	Vertical Heater & Cleaner
Makers	North Eastern Marine Eng Co Ltd		
Working Pressure	185 lbs	Test Pressure	400
		Date of Test	25/2/08

DONKEY

No. of Donkeys	One Ballast Donkey
Type	Vertical
Makers	Lamont & Co
Single or Duplex	Duplex
" Double-Acting	Double acting
Diar. of Steam Cylinders	9"
" Pumps	10"
Stroke of "	10"
Where do they pump from?	Tank, Sea & bilges
Where do they discharge to?	Condenser & overboard

Capacity, Tons per Hour of Ballast Donkey

Diar. of Pipe required by Rule for

FEED WATER FILTERS.

No.	Type	Size
Makers		
Working Pressure	Test Pressure	Date of Test

FORCED DRAUGHT FANS.

No. of Fans	Diar.	Revs. per min.
How are Fans driven?		

PUMPS.

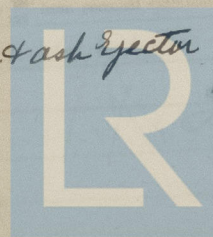
One Feed Donkey	One Sanitary Pump
Horizontal	Horizontal
Worthington & Co	Worthington & Co
Duplex	Duplex
Double acting	Double acting
9"	14 1/2"
5 1/4"	2 3/4"
10"	4"
Sea, Hotwell & Boilers	Sea

Boilers deck & ash ejector

Sanitary

largest Ballast Tank

Velocity of Water in Pipe



© 2020
Lloyd's Register
Foundation

SPARE GEAR.

No. of Top End Bolts	2	No. of Bot. End Bolts	2
" Main Bearing Bolts	2	" Coupling Bolts	One set-
" Cylr. Cover Bolts Studs	6	" Valve Chest Cover Bolts Studs	6
" Feed Pump Valves	2	" Bilge Pump Valves	2
" Safety Valve Springs	2	" Fire Bars	54
" Piston Rings	✓	" Junk Ring Bolts Studs	✓
" Piston Rods	✓	" Connecting Rods	✓
" Valve Spindles	✓	" Air Pump "	✓
" Air Pump Valves	✓	" " Buckets	✓
" Crank Pin Bushes	✓	" Crosshead Bushes	✓
" Crank Shafts	✓	" Propeller Shafts	✓
" Propellers	✓	" " Blades	2
" Boiler Tubes	✓	" Condenser Tubes	6

OTHER ARTICLES OF SPARE GEAR:-

a quantity of plate & bar iron
a number of bolts nuts & studs

GENERAL CONSTRUCTION.

Have all the Requirements under Sections 31 and 32 of the Rules been complied with? *yes*

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

Surveyor ✓

Are the Steam Pumping Arrangements in accordance with the approved Plan? *yes*

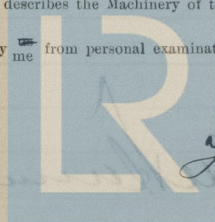
If not, state in what respects they differ and when such differences were sanctioned by the Chief

Surveyor ✓

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

Is the Workmanship throughout thoroughly satisfactory? *yes*

The above correctly describes the Machinery of the S.S. "*Beaverton*"
as ascertained by me from personal examination.



Thos. George

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

Fees—

MAIN BOILERS.

H.S. 2708 Sq. ft. 13 0 0
 G.S. 78 " : : 54

DONKEY BOILERS.

H.S. Sq. ft. : : 54
 G.S. " : : 54

ENGINES.

L.P.C. Cub. ft. 10 : 0 : 0

Testing, &c.

Expenses ...

Total ... £ 23 : 0 : 0

It is submitted that this Report be approved,

Robert King
 Chief Surveyor.

Approved by the Committee,

for the Class of M.B.S.*

on 24th June 1908.

Fees applied for 17-6-8

Fees paid

Robert King
 Secretary.



© 2020

Lloyd's Register
 Foundation

Page

MAIN ENTRY

240844 13 0 0

48

D. DOWNEY BOLLAN

25 10 11

11

Page 30

L.P. 10 0 0

Page 30

Page 30

23 0 0

It is suggested that this Report be approved.

Robert King
Secretary

approved by the Committee

for the Class of 1955
on 26th June 1955

Page signed by 7-6-55

Page 30

Robert King
Secretary



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation