

No. 511

TRANSFERRED TO  
L. R. SYSTEM

THE BRITISH CORPORATION FOR THE SURVEY  
AND  
REGISTRY OF SHIPPING.

Report No. 484 No. in Register Book 1084

S.S. Edmonton

Makers of Engines North Eastern Marine Co.

Works No. 1718

Makers of Main Boilers North Eastern Marine Co.

Works No. 1718

Makers of Donkey Boiler

Works No.

MACHINERY.



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DAG

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No.

THE BRITISH CORPORATION FOR THE SURVEY  
AND  
REGISTRY OF SHIPPING.

Report No. \_\_\_\_\_ No. in Register Book \_\_\_\_\_

Received at Head Office

10<sup>th</sup> October 1906

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

Port of Registry

Newcastle on Tyne

Registered Owners

The Matthews S. S. Co. Ltd.  
Toronto, Canada.

Surveyor's District

Newcastle

Date of Completion of Engines

9-06

" " "

Main Boilers

9-06

" " "

Donkey

✓

Trial Run at

North Sea

Date

19-9-06

First Visit

6-4-06

Last Visit

19-9-06

Total Number of Visits

22

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## ENGINES.

Made by *North Eastern Marine Eng Co. Ltd*  
 " at *Wallsend* Works No. *1718*  
 Description *Direct-acting triple expansion surface condensing*  
 No. of Cylinders, each Engine *3* Diars. *17", 28", 46"* Stroke *33"*  
 Cub. feet in each L.P. Cylr. *31.7* Revols. per Min. *103* L.H.P. *981*  
 Pressure in I.P. Receiver at full Power *65 lbs* 2nd I.P.  L.P. *11 lbs*  
 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 1/4"*  
 Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.? *yes*  
 " " " " each Receiver? *LP only*  
 Number of Bolts in H.P. Cylr. Cover *18* I.P. *18* 2nd I.P.  L.P. *24*  
 M. Diar. " " " *1 1/8"* " *1 1/8"* "  " *1 1/8"*  
 Pitch " " " *4 3/8* " *5 1/2"* "  " *6 1/2"*  
 Type of H.P. Valves (Piston or Slide) *Piston, D* "  " *D*  
 " Valve Gear *Ordinary link motion*  
 Diameter of Piston Rods (plain part) *4 1/2"* At Bottom of Thread *3.067*  
 Makers " *North Eastern Marine Co. Ltd* Material *Engg. Steel*  
 Diameter of Connecting Rods (smallest part) *4 1/2"* Material *Scrap Steel*  
 Makers " *North Eastern Marine Co. Ltd*  
 Diar. of Crosshead Gudgeons *5"* Length of Bearing *7"* Material *Scrap Steel*  
*North Eastern Marine Eng Co. Ltd*  
 No. of Top End Bolts (each Rod) *2* Effective Diar. *2.28* Material *Scrap Steel*  
 " Bot. " " *2* " *2.87* " " "  
 " Main Bearings *6* Lengths *8 1/4"*  
 " Bolts in each *2* Effective Diar. *2.87* Material *Scrap Steel*

No. of Holding Down Bolts, each Engine *43* No. of Metal Checks *none*  
 M. Diar. " " " *1 1/2"* Average Pitch *18" to 24"*  
 Are the Engines bolted directly to the Tank Top? *yes*  
 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 water*  
*ballast is to be carried in this tank.*

## SKETCHES.



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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~~ Actual *9 1/2* Diar. in Way of Webs *10 1/4*  
 Makers of " *Forging, Rochester Verein Co.* Material *I. S.*  
 Diar. of Crank Pins *9 1/2* Diar. in Way of Web *9 1/2*  
 Makers of " *Forging, Rochester Verein Co.* Material *I. S.*  
 Width across Crank Webs at Centre of Shaft *19 1/2* Thickness *6*  
 " " " " Crank Pins *14 1/2* " *6*  
 " " " " Narrowest part *14 1/2* " *6*  
 Makers of Crank Webs *Forging, Lancashire Steel Co.* Material *I. S.*  
 Diar. or Breadth of Keys in Crank Webs *15/8* Length *4 1/2*  
 " of Dowel Pins in Crank Pins *1* Length *2 1/2* Screwed or Plain *Plain*  
 No. of Bolts in each Coupling *6* Diar. at Mid Length *2 1/4* Diar. of Pitch Circle *14 1/4*  
 Material of Coupling Bolts *Scrap Steel*  
 Crank Shafts Finished by *North Eastern Marine Eng Co. Ltd*  
 Greatest Distance from edge of Main Bearing to Crank Web *1 1/4*  
 Description of Thrust Blocks *Horse shoe, adjustable*  
 Number " " Rings *5*  
 Diar. of Thrust Shafts by Rule ~~8.99~~ Actual (at bot. of Collars) *9 1/2* Over Collars *15 7/8*  
 " " at Forward Coupling *9* After Coupling *9*  
 No. of Thrust Collars *5* Thickness *2 1/2* Distance apart *3*  
 Thrust Shafts Forged by *Heanuel & Lueg* Material *I. S.*  
 " Finished by *North Eastern Marine Eng Co. Ltd*  
 Diar. of Intermediate Shafting by Rule *none* Actual   
 No. of Lengths, each Engine  No. of Tunnel Bearings   
 Diar. of Bearings  Length  Distance apart

SKETCHES

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## TURBINE ENGINES.

Type

No. of H.P. Turbines

No. of L.P. Turbines

No. of Astern "

How arranged

Revs. per Min.

Horse Power

Diar. 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 " " "

Diar. 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 " " "

Diar. 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 " " "

Diar. of Turbine Spindles

Length of Bearing

No. of Thrust Collars on each Spindle

Thickness

Distance apart

Diar. of Spindles at Bottom of Collars

Diar. over Collars

Spindles Forged by

Material

" Finished by

## SKETCHES.



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## PUMPS, ETC

No. of Air Pumps *One* Diar. *17"* Stroke *16½"*  
 Type of " *Edwardes Patent, Solid bucket.*  
 Diar. of Air Pump Rod *2½"* Material *Muntz Metal*  
 How are Air Pumps Worked? *by main engines.*

No. of Centrifugal Circulating Pumps *One* Maker *Watson & Sons Newcastle*  
 " Reciprocating " " ✓ Diar. ✓ Stroke ✓  
 Diar. of Circulating Pump Rods ✓ Material ✓  
 How are Circulating Pumps Worked? *by double acting engine by*  
*Watson & Sons, Newcastle.*  
 Diar. of Circulating Pump Suction from Sea *7"*  
 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? *boiler to main Boilers*  
 " " discharge to? *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?

*Valves & cocks fitted direct to hull plating.*

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*



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## BOILERS.

Boilers made by *North Eastern Marine Eng. Co. Ltd*  
 " at *Wallsend*  
 Works No. *1718*  
 Date when Plan approved *4-4-06*  
 Boiler Plates, Iron or Steel *Steel*  
 Makers of Shell Plates *Newburn Steel Works, Newburn*  
 " Internal Plates " " "  
 Furnaces *Weighton's Pat. Flue Co. Leeds*  
 " Stay Bars *Newburn Steel Works*  
 " Rivets *J. Miller & Co. Glasgow*  
 Material tested by (B.C., B.T., etc.) *B.C. & B. of Trade.*  
 No. of Boilers *2*  
 Single or Double-ended *Single ended*  
 No. of Furnaces, each Boiler *2*  
 Type of Furnaces *Weighton's Patent corrugated*  
 Approved Working Pressure *185 lbs*  
 Hydraulic Test Pressure *370 lbs*  
 Date of Hydraulic Test *13.7.06*  
 " when Safety Valves set *4-9-06*  
 Pressure on Valves *185 lbs*  
 Date of Steam Accumulation Test *4-9-06*  
 Max. Pressure under Accumulation Test *190 lbs*  
 System of Draught *Natural*  
 Can Boilers be worked separately? *yes*  
 Greatest ~~inside~~ Diar. of Boilers *12' 0" ext diar*  
 " Length " *11' 0 " "*  
 Square Feet of Heating Surface, each Boiler *1354*  
 " Grate " " *39*



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No. of Safety Valves, each Boiler 2  
 Diar. " " "  $2\frac{1}{2}$ "  
 Area " " " 9.8  
 Are the Valves fitted with Easing Gear? yes  
 No. of Pressure Gauges, each Boiler one in Stokelhold, one in Eng<sup>l</sup>-Room  
 " Water " " one  
 " Test Cocks, " three  
 " Salinometer Cocks, " one  
 Are Water Gauge Pillars attached by Pipes to Steam and Water Spaces? no  
 Are these Pipes connected to Boilers by Cocks or Valves? cocks  
 Are Blow-off Cocks or Valves fitted on Boiler Shells? yes  
 No. of Strakes of Shell Plating in each Boiler one  
 " Plates in each Strake Two  $\frac{15.7}{16}$   
 Thickness of Shell Plates by Rule  
 " " Approved  $1\frac{3}{32}$ "  
 " " in Boilers  $1\frac{3}{32}$ "  
 Are the Rivet Holes Punched or Drilled? Drilled  
 Are Rivets Iron or Steel? Steel  
 Are the Longitudinal Seams Butt or Lap Joints? Butt joints  
 Are the Double Butt Straps of equal width? yes  
 Thickness of outside Butt Straps  $1\frac{3}{32}$ "  
 " inside "  $1\frac{3}{32}$ "  
 Are Longitudinal Seams Hand or Machine Riveted? Machine  
 Are they Single, Double, or Treble Riveted? Treble  
 Diar. of Rivet Holes  $1\frac{5}{32}$ "  
 Pitch " 8"  
 Width of Overlap 14"  
 Percentage of Strength in Longitudinal Seams 85.5% Plate 114% Rivet



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No. of Rows of Rivets in Centre Circumferential Seams ✓

Are these Seams Hand or Machine Riveted? ✓

Diar. of Rivet Holes ✓

Pitch " ✓

Width of Overlap ✓

No. of Rows of Rivets in End Circumferential Seams *Two*

Are these Seams Hand or Machine Riveted? *Back machine, Front hand.*

Diar. of Rivet Holes *15 3/32"*

Pitch " *3 1/2"*

Width of Overlap *5 5/8"*

Size of Manholes in *Steel* *End* *16" x 12"*

Dimensions of Compensating Rings *Flanged in*

Thickness of End Plates in Steam Space by Rule *16.85/76*

" " " " " Approved *1 1/4"*

" " " " " in Boilers *1 1/4"*

Pitch of Steam Space Stays *17 1/4" x 17 3/8"*

Eff. Diar. " " " by Rule *2.6*

" " " " " Approved *2.784*

" " " " " in Boilers *2.784*

Material of " " " *Steel*

How are Stays Secured? *Nuts & washers in & out*

Diar. and Thickness of Loose Washers on End Plates *9" x 1/8"*

" " Riveted " " " ✓

Width " " Doubling Strips " " ✓

Thickness of Middle Back End Plate by Rule ✓ *14.2/16*

" " " " " Approved ✓ *14.5/16*

" " " " " in Boilers ✓ *14.5/16*

Thickness of Doublings in Wide Spaces between Rivets

Thickness of Stay at

Eff. Diar. of Stay by Rule

Approved

in Boilers

Material

Are Stays Stayed with Nuts outside?

Thickness of Back End Plates at Bottom by Rule

Approved

in Boilers

Pitch of Stay at Wide Spaces between Rivets

Thickness of Doublings in

Thickness of Front End Plates at Bottom by Rule

Approved

in Boilers

No. of Long Stays in Space between Rivets

Eff. Diar. of Stay by Rule

Approved

in Boilers

Material of

Thickness of Front Tube Plates by Rule

Approved

in Boilers

Thickness of Tube Plates at Joints between Stays of Tubes

Thickness of Tube Plates at



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Thickness of Doublings in Wide Spaces between Fireboxes ✓ none

Pitch of Stays at " " " " " ✓  $14\frac{1}{2} \times 10$

Eff. Diar. of Stays by Rule ✓ 1.78

" " " Approved ✓ 1.86

" " " in Boilers ✓ 1.86

Material " ✓ Steel

Are Stays fitted with Nuts outside? ✓ yes

Thickness of Back End Plates at Bottom by Rule  $12.6$

" " " " " Approved  $\frac{29}{32}$

" " " " " in Boilers  $\frac{29}{32}$

Pitch of Stays at Wide Spaces between Fireboxes Three stays around manhole.

Thickness of Doublings in " "  $\frac{1}{16}$  none

Thickness of Front End Plates at Bottom by Rule  $\frac{13.5}{16}$

" " " " " Approved 1"

" " " " " in Boilers 1"

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

Eff. Diar. of Stays by Rule  $1.42$

" " " " " Approved 2" 1.787

" " " " " in Boilers 2" 1.787

Material of " Iron

Thickness of Front Tube Plates by Rule  $14.2$

" " " " " Approved 1"

" " " " " in Boilers 1"

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

Thickness of Doublings in " " " ✓

" Stay Tubes at " " "  $\frac{3}{8}$

Are Stay Tubes fitted with Nuts at Front End? No

Thickness of Back Tube Plates by Rule  $\frac{11}{16}$

Approved " "  $\frac{11}{16}$

in Boilers " "  $\frac{11}{16}$

Pitch of Stay Tubes in Back Tube Plates  $8\frac{1}{2}$  centres

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

Thickness of Stay Tubes  $8\frac{1}{2}$

Material  $8\frac{1}{2}$

External Diar. of Tubes  $8\frac{1}{2}$

Material  $8\frac{1}{2}$

Thickness of Furnace Plates by Rule  $\frac{11}{16}$

Approved " "  $\frac{11}{16}$

in Boilers " "  $\frac{11}{16}$

Manhole outside diam. of Furnaces  $4\frac{1}{2}$

Length between Tube Plates  $4\frac{1}{2}$

Width of Combustion Chamber (front to back)  $4\frac{1}{2}$

Thickness of " " " " " by Rule  $1\frac{1}{16}$

Approved " " " " "  $1\frac{1}{16}$

in Boilers " " " " "  $1\frac{1}{16}$

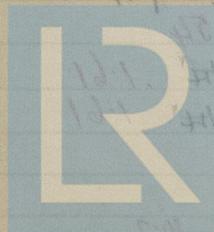
Pitch of forward stays in G.C. Top  $1\frac{1}{16} \times 1\frac{1}{16}$

Eff. Diar. " " " " " by Rule  $1\frac{1}{16}$

Approved " " " " "  $1\frac{1}{16}$

in Boilers " " " " "  $1\frac{1}{16}$

Thickness of Combustion Chamber sides by Rule  $1\frac{1}{16}$



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Are Stay Tubes fitted with Nuts at Front End?

no

Thickness of Back Tube Plates by Rule

11.95"  
16

" " " Approved

3/4"

" " " in Boilers

3/4"

Pitch of Stay Tubes in Back Tube Plates

8 1/2" centres

" Plain "

4 1/2" "

Thickness of Stay Tubes

3/8", 5/16"

" Plain "

no 8 B.W.G.

External Diar. of Tubes

3 1/4"

Material " "

Iron

Thickness of Furnace Plates by Rule

8.65"  
16

" " " Approved

9"  
16

" " " in Boilers

9"  
16

Smallest outside Diar. of Furnaces

41 7/8"

Length between Tube Plates

44 1/2"

Width of Combustion Chambers (Front to Back)

30"

Thickness of " " Tops, by Rule,

10.7"  
16

" " " " Approved

1 1/16"

" " " " in Boilers

1 1/16"

Pitch of Screwed Stays in C.C. Tops

9 1/2" x 9 1/4"

Eff. Diar. " " by Rule

1.54

" " " Approved

1 3/4" 1.61

" " " in Boilers

1 3/4" 1.61

Material " "

Steel

Thickness of Combustion Chamber Sides by Rule

10.7  
16

Thickness of Combustion Chamber sides Approved

" " " in Boilers

Pitch of screw stays in C.C. Sides

" " " by Rule

" " " Approved

" " " in Boilers

Material " "

Thickness of Combustion Chamber Heads by Rule

" " " Approved

" " " in Boilers

Pitch of screw stays in C.C. Heads

" " " by Rule

" " " Approved

" " " in Boilers

Material " "

Are all screw plates fitted with Nuts inside C.C.

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

" " " Centres

Depth and Thickness of Girders

Material of Girders

No. of stays in each

No. of stays in each boiler

Size of lower Manholes



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Thickness of Combustion Chamber Sides Approved

 $\frac{4}{16}$ 

" " " " in Boilers

 $\frac{4}{16}$ 

Pitch of Screwed Stays in C.C. Sides

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

Eff. Diar. " " by Rule

1.54

" " " Approved

 $1\frac{3}{4}$ " (1.61)

" " " in Boilers

 $1\frac{3}{4}$ " 1.61

Material " "

Steel

Thickness of Combustion Chamber Backs by Rule

 $\frac{10.7}{16}$ 

" " " " Approved

 $\frac{11}{16}$ 

" " " " in Boilers

 $\frac{11}{16}$ 

Pitch of Screwed Stays in C.C. Backs

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

Eff. Diar. " " by Rule

1.53

" " " Approved

2",  $1\frac{7}{8}$ ", &  $1\frac{3}{4}$ " (1.61)

" " " in Boilers

" " "

Material " "

Steel

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

yes

Thickness of Combustion Chamber Bottoms

1"

No. of Girders over each Wing Chamber

5

" " " Centre "

✓

Depth and Thickness of Girders

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

Material of Girders

Steel

No. of Stays in each

2

No. of Stay Tubes, each Boiler

62

" " Plain " " "

110

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 Crown Flat or Dished?

Thickness of Plates

Internal Radius of Dished Ends

Description of Stays in Boiler Crown

Width of Overlap

Pitch

Diam. of Rivet Heads

Height of Firebox Crown above Fire Grate

Are Firebox Crown Flat or Dished?

Thickness of Plates

External Radius of Dished Crown

Material

Effective Diam.

No. of Crown Stays

Thickness of Plates

Bottom

Internal Diam. of Firebox at Top

The Diam.

No. of Water Tubes

Material of Water Tubes

Material

Eff. Diam.

No. of Screwed Stays in Firebox Sides

Outside

Are they fitted with Nuts inside?

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

Date of Hydrostatic Test

Date when being fitted on



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*No* VERTICAL DONKEY BOILERS. *fitted*

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 Gate

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 Gate

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?

*No* 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

33 SKETCHES

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*THE REFRIGERATORS*

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*33*



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no MAIN STEAM PIPES. fitted

No. of Lengths	2	1
Material	Solid drawn	Copper
Brazed, Welded, or Seamless	Seamless	"
Internal Diam.	3 3/4"	5"
Thickness	7 w.l.s.	5 w.l.s.
How are Flanges Secured?	Brazed	Brazed
Date of Hydraulic Test	9-8-06	29-8-06
Test Pressure	370 lbs	370 lbs

no 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

no SUPERHEATERS

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, " "

Diam. 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



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

*Each light provided with its own Switch, navigation switches in chart room.*

No. of Circuits	Name of Circuit	Kind of Lamp	Number of Lamps						
1	Gallop	H	8	H	10	H	1000	H	1000
2	"	H	8	H	10	H	1000	H	1000

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? *armoured cables*

" " Saloons, State Rooms, &c., " *wood casing & insulated*

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp *in iron pipes.*

(2) " " passing through Bunkers or Cargo Spaces *in iron pipes*

(3) " " Deck Beams or Bulkheads *wood lined brass glands.*

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

is unimpaired? *yes*

Are all Joints in accessible positions, none being made in Bunkers or Cargo Spaces? *yes, no*

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

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? Ohms.

Is the Installation supplied with a Voltmeter? *yes*

" " " " an Ampere Meter? *yes*

Date of Trial of complete Installation *19-9-06* Duration of Trial

DONKEY



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# no EVAPORATORS.

No. *1* Type *North Eastern Marine Surface heater* Tons per Day *185 lbs*  
 Makers *North Eastern Marine Eng Co. Ltd*  
 Working Pressure *185 lbs* Test Pressure *370 lbs* Date of Test *8/06*  
 Date of Test of Safety Valves under Steam

## FEED WATER HEATERS.

No. *1* Type *North Eastern Marine Surface heater*  
 Makers *North Eastern Marine Eng Co. Ltd*  
 Working Pressure *185 lbs* Test Pressure *370 lbs* Date of Test *8/06*

## DONKEY

No. of Donkeys *Three*  
 Type *Workington duplex feed pumps* Lamont  
 Makers *Workington & Co.*  
 Single or Duplex *Duplex*  
 Double-Acting *Double acting*  
 Diam. of Steam Cylinders *Feed pumps 9"*  
 Pumps *5 1/4"*  
 Stroke of *10"*  
 Where do they pump from? *Feed, from Sea, hotwell & Boilers.*  
 " " " " *Ballast from Sea tanks and*  
 " " " " *Sanitary from Sea.*  
 Where do they discharge to? *Feed, boilers, deck and ash*  
 " " " " *Ballast, condenser and*  
 " " " " *Sanitary to Sanitary and*

Capacity, Tons per Hour of Ballast Donkey *140 tons* Diam. of Pipe required by Rule for

# no FEED WATER FILTERS.

No. *2* Type *2* Size *2*  
 Makers *2*  
 Working Pressure *2* Test Pressure *2* Date of Test *2*

# no FORCED DRAUGHT FANS.

No. of Fans *2* Diam. *2* Revols. per min. *2*  
 How are Fans driven? *2*

## PUMPS.

*Ballast pump, Workington duplex sanitary pump.*  
 Lamont & Co. Workington & Co.  
 Duplex Duplex  
 Double acting Double acting  
 Ballast pumps 9" Sanitary pumps 14 1/2"  
 10" 2 3/4"  
 10" 14"

*bilges.*

*jector.*  
*overboard.*  
*fresh water*

largest Ballast Tank *8" pipe fitted*

Velocity of Water in Pipe *1133.0*  
~~28.8~~ ft. per min



Fees—

MAIN BOILERS.

H.S. 2408 Sq. ft.      2      6      13 : 0 : 0

G.S. 78      "      6      13 : 0 : 0

No DONKEY BOILERS.

H.S. ✓      Sq. ft.      :      :

G.S. ✓      "      :      :

£ 13 : 0 : 0

ENGINES.

L.P.C. 31.7      Cub. ft.      10 : 0 : 0

£ :

Testing, &c. ...

£ :

Expenses ...

Total ... £ 23 : 0 : 0

It is submitted that this Report be approved,

*John King*  
Chief Surveyor.

Approved by the Committee,

*for the class of M.B.S.\**  
*on the 10. October 1906*

Fees applied for

18-9-6

Fees paid

27-9-6

*John Manning*  
Secretary.

*Sees Ash Ejector.*



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Ben's Club Report

Mary Bennett  
 No. 2708  
 78 13 0 0  
 No. Donkey Bennett  
 H.A. ✓  
 G.S. ✓

13 0 0

Receipts

L.P.C. 317  
 10 0 0

Nothing on the account...

Expenses  
 Total 23 0 0

It is submitted that this Report be approved.

*John King*

Approved by the Committee in the Chair of M.B. 5th  
 on the 10. October 1906

Four applied for 18 9 6  
 Five sold 27 9 6

*John King*



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