

No. 2225

R.H. Marshall
Stm Reap.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 2244 No. in Register Book 3628

S.S. "Joseph P. Burke."

Makers of Engines Swan Hunter & W.R. Ltd.

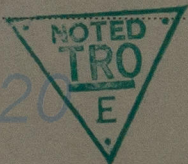
Works No. 1330.

Makers of Main Boilers Swan Hunter & W.R. Ltd.

Works No. 1330.

Makers of Donkey Boiler none

Works No. 2020



MACHINERY.

Lloyd's Register
Foundation

003556-003566-0147

No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

24th February 1930.

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ^{Single Triple} ~~Double Quadruple~~ Screw "Joseph P. Burke"

Official No. 149499 Port of Registry Newcastle.

Registered Owners Sarnia Steamships Ltd.
Sarnia, Ontario.

Engines Built by Swan Hunter & W.R. Ltd.
at Walker.

Main Boilers Built by Swan Hunter & W.R. Ltd.
at Walker.

Donkey " " None fitted.
at

Date of Completion 4th April 1929.

First Visit 13th Sept 1928. Last Visit 14. 4. 29. Total Visits 56.

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RECIPROCATING ENGINES.

Works No. 1330 No. of Sets One Description Triple expansion surface condensing.

No. of Cylinders each Engine Three No. of Cranks Three
 Diars of Cylinders Three 15", 25" & 40" Stroke 33"
 Cubic feet in each L.P. Cylinder 24.

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

" " each Receiver? Yes

Type of H.P. Valves, Piston Valve.

1st I.P. " Tric Valve.

2nd I.P.,

L.P. "

" Valve Gear Stephenson Link.

" Condenser Circular 2 flow. Cooling Surface 400 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.

Thrds. per inch

Material

" Crank Pin " "

"

"

"

" Main Bearings

Lengths

" Bolts in each

Diar. over Thread

Threads per inch

Material

" Holding Down Bolts, each Engine

61

Diar. 1 1/4"

No. of Metal Chocks

61.

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

John Spencer & Sons.

Piston " "

Crossheads, " "

Connecting Rods, Finished by

Swan Hunter & W.R. Ltd.

Piston " "

Crossheads, " "

Date of Harbour Trial

21.3.29.

" Trial Trip

4.4.29.

Trials run at

Off. R. 29.

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

Yes.

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

841

Revs. per min.

91.45

Pressure in 1st I.P. Receiver, 1/2

lbs., 2nd I.P.,

✓

lbs., L.P.,

10

lbs., Vacuum,

25 1/2 ins.

Speed on Trial

8.9

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

data:—

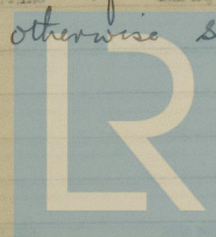
✓

Builders' estimated L.H.P. ✓

Revs. per min. ✓

Estimated Speed ✓

This machinery is a duplicate of that numbered 1334 and fitted in No 1369 (S/S John O. McKellar) building at the same time and the details of which are similar unless otherwise stated.



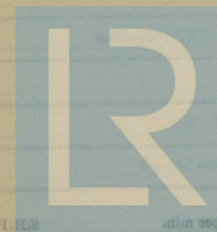
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TURBINE ENGINES.

Works No.	Type of Turbines		
No. of H.P. Turbines	No. of L.P.	No. of L.P.	No. of Astern
Are the Propeller Shafts driven direct by the Turbines or through Gearing?			
Is Single or Double Reduction Gear employed?			
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 H.P. Turbines at Full Power		S.H.P.	
" " I.P. " "			
" " L.P. " "			
" " 1st Reduction Shaft			
" " 2nd " "			
" " Propeller Shaft			
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 INSTALLATION

2 — 3½" N.R. Auxiliary Stop Valves 19-11-78.
 1 — 3½" Branch piece. 360 lbs. 20-11-78.



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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

Diar. of 1st Reduction Pinion

Width

Pitch of Teeth

" 1st " Wheel

Estimated Pressure per lineal inch

Diar. 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

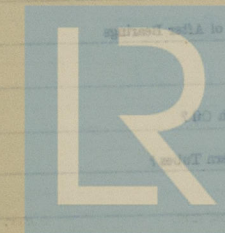
Turbine Spindles forged by

" Wheels forged or cast by

Reduction Gear Shafts forged by

" Wheels forged or cast by

DESCRIPTION OF INSTALLATION.



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No. of Blades each Propeller. *SKETCH OF PROPELLER SHAFT*
 Material of Blades. *See Kingdoc*
 Diam. of Propellers. Pitch. Surface (each. S. ft.)
 Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth

Crank Shafts Forged by *John Spencer & Son* Material *Steel.*
 „ Pins „ „ „ „
 „ Webs „ *Steel Coy of Scotland* „ „
 Thrust Shafts „ *John Spencer & Sons* „ „
 Interned. „ „ *none* „ „
 Propeller „ „ *John Spencer & Sons* „ „
 Crank „ Finished by *Swan Hunter & W.R. Ltd.*
 Thrust „ „ „ „ „ „
 Interned. „ „ „ „ „ „
 Propeller „ „ „ „ „ „

STAMP MARKS ON SHAFTS.

Crank Shaft. 389 G.H.B. 18. 9. 28.
 J.L. 4. 12. 28.

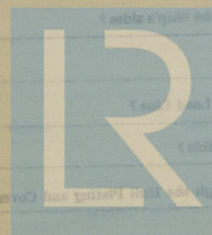
Thrust Shaft. 392 G.H.B. 21. 9. 28.
 J.L. 4. 12. 28.

Propeller Shaft. 392 G.H.B.
 J.L. 4. 12. 28.

SKETCH OF PROPELLER SHAFT.

See *Kingdoc*
 Eng No 1236 built 1927.

See Kingdoc
 Eng No 1236 built 1927.
 No. of Air Pumps
 Worked by Main or Independent Engines
 No. of Circulating Pumps
 Type of
 Diam. of
 Has each Pump a High Section with Non-return Valve?
 What other Pumps are connected through Condenser?
 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
 What other Pumps can take the boilers?
 No. of High Pumps on Main Engines
 Can one Pump be overhauled while the others are at work?
 No. of Independent High Pumps
 What other Pumps can draw from the High?
 Are all High Sections fitted with Relief?
 Are the Valves, etc., so arranged as to prevent unintentional connection between the High and High?



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PUMPS, ETC. SKETCH OF SHEET

No. of Air Pumps

One

Diar.

Stroke

Worked by Main or Independent Engines?

No. of Circulating Pumps

One

Diar.

Stroke

Type of

"

Dawson & Downie

Simplex.

Diar. of

"

Suction from Sea

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

Diar.

What other Pumps can circulate through Condenser?

Ballast pump.

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?

General Service pump and injector.

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?

Circulating pump and ballast pump.

Are all Bilge Suctions fitted with Roses?

Yes. or mudboxes.

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

Single or Double-ended

No. of Furnaces in each

Type of Furnaces

Date when Plan approved

Approved Working Pressure

Hydraulic Test Pressure

Date of Hydraulic Test

" when Safety Valves set

Pressure at which Valves were set

Date of Accumulation Test

Maximum Pressure under Accumulation Test

System of Draught

Can Boilers be worked separately?

Makers of Plates

" " " "

" " " "

" " " "

Greatest Internal Diam. of Boilers

" " " "

Square Feet of Heating Surface

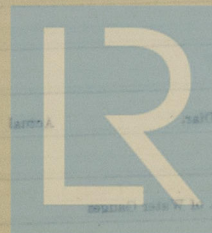
" " " "

No. of Safety Valves and Relief

" " " "

No. of Pressure Gauges and Boilers

" " " "



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BOILERS.

Works No. 1330.

No. of Boilers Two Type Cylindrical Multitubular

Single or Double-ended Single-ended.

No. of Furnaces in each Two.

Type of Furnaces Deighton.

Date when Plan approved 31.8.28

Approved Working Pressure 180 lbs. sq. in.

Hydraulic Test Pressure 320 lbs. sq. in.

Date of Hydraulic Test 4.2.29.

" when Safety Valves set 21.3.29.

Pressure at which Valves were set 185 lbs. sq. in.

Date of Accumulation Test No accumulation.

Maximum Pressure under Accumulation Test ✓

System of Draught Howden's Forced draught. C.A.

Can Boilers be worked separately? Yes.

Makers of Plates Steel Cast of Scotland

" Stay Bars

" Rivets River, Bolt & Nut Coy.

" Furnaces Broomside Boiler works.

Greatest Internal Diam. of Boilers

" " Length "

Square Feet of Heating Surface each Boiler

" " Grate " "

No. of Safety Valves each Boiler Rule Diam. Actual

Are the Safety Valves fitted with Easing Gear?

No. of Pressure Gauges, each Boiler No. of Water Gauges

" Test Cocks " "

" Salinometer Cocks

2

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Are the Water Gauges fitted direct to the Boiler Shells or mounted on Pillars?

Are the Water Gauge Pillars fitted direct to the Boiler Shells or connected by Pipes?

Are these Pipes connected to Boilers by Cocks or Valves?

Are Blow-off Cocks or Valves fitted on Boiler Shells?

No. of Strakes of Shell Plating in each Boiler

Plates in each Strake

Thickness of Shell Plates Approved

" " in Boilers

Are the Rivets Iron or Steel?

Are the Longitudinal Seams Butt or Lap Joints?

Are the Butt Straps Single or Double?

Are the Double Butt Straps of equal width?

Thickness of outside Butt Straps

" inside "

Are Longitudinal Seams Hand or Machine Riveted?

Are they Single, Double, or Treble Riveted?

No. of Rivets in a Pitch

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Centre Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Front End Circumferential Seams

Are these Seams Hand or Machine riveted?

Diar. of Rivet Holes Pitch

No. of Rows of Rivets in Back End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diar. of Rivet Holes Pitch

Size of Manholes in Shell

Dimensions of Compensating Rings



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Are the Water Spaces fitted back to the Boiler Shell or connected by Pipes?
 Thickness of End Plates in Steam Space Approved

Are the Water Spaces fitted back to the Boiler Shell or connected by Pipes?

" " " " " in Boilers

Are the Pipes connected to Boilers by Gaskets or Valves?

Pitch of Steam Space Stays

Are they of Cast Iron or Cast Steel fitted on Boiler Shell?

Diam. " " " " " Approved Threads per Inch

No. of Stays at each End of each Boiler

" " " " " in Boilers "

Place in each Space

Material of " " "

Thickness of Shell Plates Approved

How are Stays Secured?

" " " " " in Boilers

Diam. and Thickness of Loose Washers on End Plates

Are the Washers of Cast Iron or Steel?

" " " " " Riveted " "

Are the Longitudinal Stays Fast or Lap Joints?

Width " " " Doubling Strips "

Are the Ends Secured Single or Double?

Are the Middle Back Stays of equal width?

Thickness of Middle Back End Plates Approved

Thickness of Middle Back Stays

" " " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Are the Doublings of equal thickness?

Pitch of Stays at " " " "

Diam. of Stays Approved

Threads per Inch

Diam. of Stays Approved

" " " " " in Boilers "

Place in each Space

Material "

Are the Stays fitted with Nuts outside?

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Diam. 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 Diam. of Tubes

Material "

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diam. 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

Diam. of Screwed Stays Approved

" " in Boilers

Material "

Thickness of Combustion Chamber Sides Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Sides

Diam. " Approved Threads per Inch

" " in Boilers

Material "

Thickness of Combustion Chamber Backs Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Backs

Diam. " 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

Diam. of Tubes



Diar. 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

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

" " " " in Boilers

Pitch of Screwed Stays in C.O. Backs

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

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

Thickness of Combustion Chamber Bottoms

Thickness of Furnace Plates Approved

No. of Girders over each Wing Chamber

" " " Centre "

Depth and Thickness of Girders

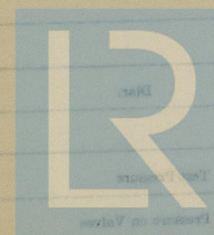
Material of Girders

No. of Stays in each

No. of Tubes, each Boiler

Size of Lower Manholes

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



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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		
Diarr. 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	Diarr.	Material
External Diarr. of Firebox at Top	Bottom	Thickness of Plates
No. of Water Tubes	Ext. Diarr.	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

Diarr.

Are " " fitted with Easing Gear?

Date of Hydraulic Test

Test Pressure

Date when Safety Valves set

Pressure on Valves

MAIN STEAM PIPES.



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MAIN STEAM PIPES.

No. of Lengths

3.

Material

Steel.

Brazed, Welded or Seamless

Seamless.

Internal Diam.

3 1/2"

Thickness

1/4"

How are Flanges secured?

Screwed.

Date of Hydraulic Test

8.3.29.

Test Pressure

540 lbs.

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

SUPERHEATERS.

LIST OF PUMPS

same as 5/2 John O. McKeel's No. 1369
 5/2 No. 1324
 5/2 No. 1324
 5/2 No. 1324

FEED WATER HEATERS

same as 5/2 John O. McKeel's No. 1369
 5/2 No. 1324
 5/2 No. 1324
 5/2 No. 1324

FEED WATER FILTERS

same as 5/2 John O. McKeel's No. 1369
 5/2 No. 1324
 5/2 No. 1324
 5/2 No. 1324



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EVAPORATORS.

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

FEED WATER HEATERS.

No.	One.	Type	Exhaust Steam Surface.	
Makers	Hocking.		lb. □.	@
Working Pressure	180 lbs. □.	Test Pressure	Coils 450 Body 50	Date of Test 28.12.28.

FEED WATER FILTERS.

No.	Type	Pressure.	Size
Makers	Hy Watson & Sons.		@
Working Pressure	180 lbs. □.	Test Pressure	450 lbs. □.
			Date of Test 18.12.28.

LIST OF DONKEY PUMPS.

Same as s/s "John O. McKellar" No 1369
Sug No 1324
Built 1929.

Valve Chest	"	"	"	"
High Pump Valve	"	"	"	"
L.P. Piston Rings	"	"	"	"
Spring	"	"	"	"
Feed Check Valve	"	"	"	"
Valve Spindles	"	"	"	"
Air Pump Valve	"	"	"	"
Oil	"	"	"	"
Crosshead Pin	"	"	"	"
Propeller Pin	"	"	"	"
Condenser Piston	"	"	"	"



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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	" L.P. Piston Rings	" L.P. Piston Rings
" " Springs	" " Springs	" " Springs
" Safety Valve "	" Fire Bars	" Feed Check Valves
" Piston Rods	" Connecting Rods	" Valve Spindles
" Air Pump Rods	" Air Pump Buckets	" Air Pump Valves
" Ctr. "	" Ctr. "	" Ctr. "
" Crank Shafts	" Crank Pin Bushes	" Crosshead Bushes
" Propeller Shafts	" Propellers	" Propeller Blades
" Boiler Tubes	" Condenser Tubes	" Condenser Ferrules

OTHER ARTICLES OF SPARE GEAR:—

REFRIGERATORS

No. of Machines	Capacity of each	No. of Compressors	No. of Steam Cylinders, each Machine
Markets	Capacity of each	No. of Compressors	No. of Steam Cylinders, each Machine
Description	Capacity of each	No. of Compressors	No. of Steam Cylinders, each Machine

Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines or independently

Are there any other Refrigerating Valves placed so as to be accessible without entering the insulated space?

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 there any other Refrigerating Valves placed so as to be accessible without entering the insulated space?



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REFRIGERATORS.

No. of Machines	Capacity of each	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:—

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ELECTRIC LIGHTING

Installation Fitted by *Swan Hunter & W.R. Ltd.*
No. and Description of Dynamos *One Compound wound.*
Makers of Dynamos *Sunderland Forge & Eng Co.*
Capacity *91* Amperes, at *110* Volts, *380* Revols. per Min.
Current Alternating or Continuous *Continuous*
Single or Double Wire System *Double wire*
Position of Dynamos *On steering engine platform.*
Main Switch Board *On lower platform. Stb side.*
No. of Circuits to which Switches are provided on Main Switch Board *Four.*

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.
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Total No. of Lights

No. of Motors driving Fans, &c.

No. of Heaters

Current required for Motors and Heaters

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. *Yes*

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.

as ascertained by ^{me} from personal examination

Joseph P. Burke.

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

Fees—

MAIN BOILERS.

	£	s.	d.
H.S. Sq. ft.	:	:	:
G.S. "	:	:	:

DONKEY BOILERS.

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

ENGINES.

L.P.O. Cub. ft.	:	:	:
	£	:	:
Testing, &c. ...	:	:	:
	£	:	:
Expenses ...	:	:	:
Total ...	£	:	:

It is submitted that this Report be approved,

Joe Barr for Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the *23rd December 1929.*

Fees advised

Fees paid



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—206—

2.4

DONKEY BOLLERS

2

1870

1602 David

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