

No. 2301

THE BRITISH CORPORATION FOR THE SURVEY
AND

REGISTRY OF SHIPPING.

N/N TORONPOC,

Report No. 2264 No. in Register Book 3651

S.S. "Saracen."

Makers of Engines Wallsend Slipway & Engloy.

Works No. 887.

Makers of Main Boilers Wallsend Slipway & Engloy.

Works No. 887.

Makers of Donkey Boiler None.

Works No. —

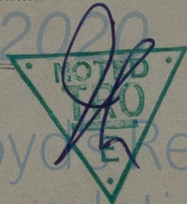


MACHINERY.



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003131-003137-0119

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} ~~Twin Quadruple~~ Screw "Baraceni".

Official No. 161523

Port of Registry Newcastle.

Registered Owners

Inland Line Ltd.

Train Exchange, Winnipeg.

Engines Built by

The Wallsend Shipway & Englopy.

at Wallsend.

Main Boilers Built by

The Wallsend Shipway & Englopy.

at Wallsend.

Donkey ..

None.

Date of Completion

17.5.29.

First Visit

26.11.28.

Last Visit

17.5.29.

Total Visits

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RECIPROCATING ENGINES.

Works No. 887. No. of Sets One Description Triple expansion
Surface condensing.

No. of Cylinders each Engine Three. No. of Cranks Three.
Diars. of Cylinders 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. " Eric Valve.

2nd I.P.,

L.P. " Double ported slide.

" Valve Gear Stephenson Link.

" Condenser Circular Two flow. Cooling Surface 700 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

Langley Forge. Langley.

Piston " "

Crossheads,

Connecting Rods, Finished by

Wallend Slipway & Eng'g Co.

Piston " "

Crossheads,

Date of Harbour Trial 11.5.29.

" Trial Trip 17.5.29.

Trial run at Off River Tyne.

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

If so, what was the I.H.P.? 884.

Revs. per min. 93.75

Pressure in 1st I.P. Receiver, 70.0 lbs., 2nd I.P., ✓ lbs., L.P., 10.5 lbs., Vacuum, 25.4 ins.

Speed on Trial 9.08.

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

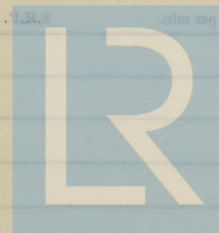
data:—

Builders' estimated I.H.P. ✓

Revs. per min. ✓

Estimated Speed ✓

This machinery is a duplicate of that numbered 1324 built by Swan Hunter and fitted into No 1369 of 'John O. McKellar' building at the same time, 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 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?

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

DESCRIPTION OF INSTALLATION.

No. of Turbine-Generator Sets

Capacity of each

Type of Turbines employed

Description of Generators

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

Is Single or Double Reduction Gear employed?

Description of Motors

DESCRIPTION OF INSTALLATION.

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 "

" " 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



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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

Diam. of 1st Reduction Pinion

" 1st " Wheel

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion

" 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

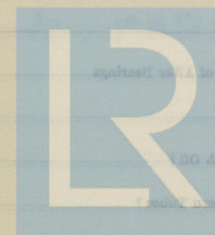
Turbine Spindles forged by

" Wheels forged or cast by

Reduction Gear Shafts forged by

" Wheels forged or cast by

DESCRIPTION OF INSTALLATION.



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SHAFTING.

Are the Crank Shafts Built or Solid?

Built.

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

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

Multi-collar horse shoe.

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

no intermediate shafting.

Diar. of Propeller Shafts by Rule

Actual

At Coupling

Are Propeller Shafts fitted with Continuous Brass Liners?

Diar. over Liners

Length of After Bearings

Of what Material are the After Bearings composed?

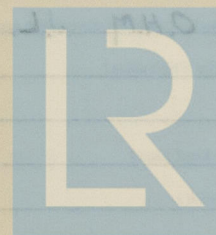
Are Means provided for lubricating the After Bearings with Oil?

" " to prevent Sea Water entering the Stern Tubes?

If so, what Type is adopted?

SKETCH OF CRANK SHAFT.

*Same as 1/2 Kingdoe
Engine No 1236. built 1927.*



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No. of Blades each Propeller

Pitted 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

Langley Forge.

Material

Steel.

,, Pins ,,

,, Webs ,,

Thrust Shafts ,,

Intermed. ,,

Propeller ,,

Crank ,, Finished by

Wallsend Slipway.

Thrust ,,

Intermed. ,,

Propeller ,,

STAMP MARKS ON SHAFTS.

Crank Shaft. B.C. 210. O.H.M. J.L. 22/3/29

Thrust shaft. B.C. 200. O.H.M. J.L. 22/3/29

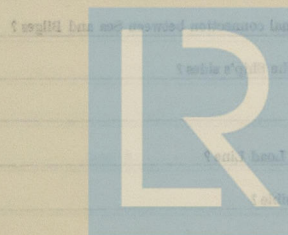
Propeller shaft B.C. 202. O.H.M. J.L. 22/3/29

SKETCH OF PROPELLER SHAFT.

Same as $\frac{1}{2}$ Kingdoc.
 Engine No 1236.
 Built 1927.

General service pump and
 bilge pump

bilge pump



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PUMPS, ETC.

No. of Air Pumps *One* Diar. Stroke

Worked by Main or Independent Engines?

No. of Circulating Pumps *One* Diar. StrokeType of " *Hawson, 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 pumps 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 Cock/ or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges on the Outside?

BOILERS

Works No. *888*No. of Boilers *Two*

Single or Double-ended

No. of Furnaces in each

Type of Furnaces

Date when first approved

Approval 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 Drafting

Can Boilers be worked separately?

Material of Plates

" " " "

" " " "

" " " "

" " " "

Greatest Internal Diam. of Boilers

" " " "

Pressure Test of Heating Surface each Boiler

" " " "

" " " "

Are the Boilers fitted with Safety Valves?

No. of Pressure Cocks each Boiler

Test Cocks



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BOILERS

Works No. *887.*
 No. of Boilers *Two* Type *Multitubular Cylindrical.*
 Single or Double-ended *Single-ended.*
 No. of Furnaces in each *Two.*
 Type of Furnaces *Seighton.*
 Date when Plan approved *7.2.29.*
 Approved Working Pressure *180 lbs.*
 Hydraulic Test Pressure *320 . . . Ballast pump.*
 Date of Hydraulic Test *11.4.29.*
 „ when Safety Valves set *11.5.29.*
 Pressure at which Valves were set *185 lbs.*
 Date of Accumulation Test *None taken*
 Maximum Pressure under Accumulation Test *✓*
 System of Draught *Howden's Forced Draught.*
 Can Boilers be worked separately? *Yes.*
 Makers of Plates *Steel Coy of Scotland.*
 „ Stay Bars *„*
 „ Rivets *Rivet, bolt & nut Coy.*
 „ Furnaces *Seighton. Flue & Tube Coy.*
 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



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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

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Centre Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Front End Circumferential Seams

Are these Seams Hand or Machine riveted?

Diam. of Rivet Holes Pitch

No. of Rows of Rivets in Back End Circumferential Seams

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes Pitch

Size of Manholes in Shell

Dimensions of Compensating Rings



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Thickness of End Plates in Steam Space Approved

Are the Water Pipes, Stays, etc., in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved Threads per Inch

" " " " " In Boilers

Material of " " " "

How are Stays Secured? Approved

Diar. and Thickness of Loose Washers on End Plates

Are the " " " Riveted " "

Width " " Doubling Strips "

Are the Bolt Heads Single or Double?

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?

Are these Nuts Fitted or Machine Threaded?

Thickness of Back End Plates at Bottom Approved

" " " " " In Boilers

Pitch of Stays at Wide Spaces between Fireboxes

Thickness of Doublings in " " "

No. of Rows of Rivets in Back End Circumferential Joints

Thickness of Front End Plates at Bottom Approved

" " " " " In Boilers

No. of Longitudinal Stays in Spaces between Furnaces

Dimensions of Doubling Strips

Diagonal of Stay Plates Approved

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

Material of Tubes

Material

Thickness of Furnace Plates Approved

in Boilers

Smallest outside Diam. of Stay Tubes (between Boilers)

Length between Tube Plates



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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



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Diam. of Screwed Stays Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Sides Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Sides

Diam. " " Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

" " " " in Boilers

Pitch of Screwed Stays in C.C. Backs

Diam. " " Approved Threads per Inch

" " " in Boilers

Material " "

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

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

VERTICAL DONKEY BOILERS

No. of Boilers
Type
Greatest Int. Diam.
Height
Height of Boiler Crown above the Grate
Are Boiler Crown Flat or Dished?
Internal Radius of Internal Links
Description of Grates in Boiler Crown
Pitch of Grate Links
Height of Grate Crown above the Grate
Are Grates Crown Flat or Dished?
External Radius of Internal Crown
Size of Crown Stays
Internal Diam. of Link at Top
Bottom
Thickness
Size of Water Tubes
Height of Water Tubes
Size of Manhole in Link
Thickness of Combustion Ring
Heating Surface, each Boiler
Gross Surface

SUPERHEATERS



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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

No. of Pipes

Material

Heating Surface, each Pipe

Internal Diarr.

Thickness

How are Pipes secured?

Date of Hydraulic Test

Test Pressure

No. of Pipes

Material

Heating Surface, each Pipe

Internal Diarr.

Thickness

How are Pipes secured?

Date of Hydraulic Test

Test Pressure

No. of Pipes

Material

Heating Surface, each Pipe

Internal Diarr.

Thickness

How are Pipes secured?

Date of Hydraulic Test

Test Pressure



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MAIN STEAM PIPES.

No. of Lengths	3.			
Material	Steel.			
Brazed, Welded or Seamless	Seamless.			
Internal Diam.	3½"			
Thickness	¼"			
How are Flanges secured?	Screwed.			
Date of Hydraulic Test	3-5-79.			
Test Pressure	540 lbs/sq			
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				
No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diam.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				
No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diam.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				

LIST OF PUMPS AND VALVES.

No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diam.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				
No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diam.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				
No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diam.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
Are Flanges Covered that are Flanged?				
Internal Diameter of Flanged Connection				



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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.		
Working Pressure 180 lbs	Test Pressure Coils 450 lbs Body 50 "	Date of Test 3. 4. 29.

FEED WATER FILTERS.

No. One.	Type Pressure	Size
Makers HyWaker & Sons.		
Working Pressure 180 lbs	Test Pressure 450 lbs	Date of Test 11. 4. 29.

LIST OF DONKEY PUMPS.

No. of Top End Bolt	No. of Top End Bolt	No. of Top End Bolt
Same as John D. McKellar		
Eng No 1324		Built 1929.



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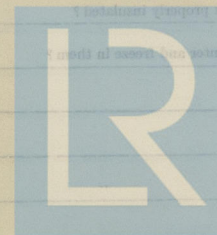
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LIST OF SPARE GEAR.

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 "	" Fire 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:—

REFRIGERATORS



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REFRIGERATORS.

No. of Machines	Capacity of each	No. of Cylinder Valve Gears
Makers	Main Reciprocating Pumps	Valve Chest
Description	Reciprocating Pumps	Slide Piston Valves
1.1. Piston Rings	1.1. Piston Rings	1.1. Piston Rings
" Springs	" Springs	" Springs
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		
Air Pump Valves	Air Pump Valves	Air Pump Valves
Air	Air	Air
Head Gears	Head Gears	Head Gears
Propeller Shafts	Propeller	Propeller Shafts
Boiler Tubes	Condenser Tubes	Exhausting Pumps

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

Installation fitted by
No. and Description of Dynamos
Makers of Dynamos
Capacity
Current Alternating or Continuous
Single or Double Wire System
Location of Dynamos
Main Switch Board
No. of Outlets to which switches are provided on Main Switch Board
Particulars of these Outlets

Location of Outlets	Particulars of these Outlets	No. of Outlets to which switches are provided on Main Switch Board	Location of Dynamos	Current Alternating or Continuous	Capacity	Makers of Dynamos	No. and Description of Dynamos	Installation fitted by

Are Out-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 Out-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? *yes*What does the Resistance amount to? *400,000*

Ohms.

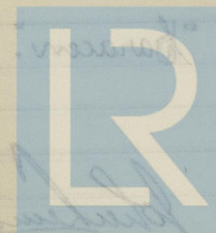
Is the Installation supplied with a Voltmeter?

" " " an Ampere Meter *yes*Date of Trial of complete Installation *11.5.29*

Duration of Trial

*6. hours.*Have all the requirements of Section 42 been satisfactorily carried out? *yes*

Expenses



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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. *✓*

Fees—

MAIN BOILERS.

	£	s.	d.
H.S.	Sq. ft.	:	:
G.S.	"	:	:

DONKEY BOILERS.

H.S.	Sq. ft.	:	:
G.S.	"	:	:
	£	:	:

ENGINES.

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

It is submitted that this Report be approved,

Jas 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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Secretary.

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

"Baracen"

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

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