

No.2047

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. *1873* No. in Register Book *3187*

"*SOUTHERN SPRAY*"
S.S. *204*

Makers of Engines *Smith's Dock Co. Ltd.*

Works No. *273*

Makers of Main Boilers *Hawthorn Leslie & Co. Ltd.*

Works No. *8864*

Makers of Donkey Boiler

Works No.

MACHINERY.



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No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
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Report No. 1873 No. in Register Book 3187

Received at Head Office 28th October 1925

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

"Southern Spray"

Official No. 147320

Port of Registry Liverpool

Registered Owners

The Southern Whaling Steaming Co. Ltd.

Engines Built by

Smiths & Co. Ltd.

at

South Quay-on-Sea

Main Boilers Built by

Hawthorn Leslie & Co. Ltd.

at

Newcastle-on-Tyne

Donkey

at

Date of Completion

7-29

First Visit

17-2-25

Last Visit

30-7-25

Total Visits 45

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RECIPROCATING ENGINES.

Works No. *273.* No. of Sets *1* Description *Triple expansion.
L.P. 3crks.*

No. of Cylinders each Engine *3* No. of Cranks *3*
Diars of Cylinders *16-26-43* Stroke *26"*
Cubic feet in each L.P. Cylinder *21.8*

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

" " " each Receiver?

Type of H.P. Valves,

" 1st I.P. "

" 2nd I.P. "

" L.P. "

" Valve Gear

" Condenser

Diameter of Piston Rods (plain part)

Material

Diars. of Connecting Rods (smallest part)

" Crosshead Gudgeons

No. of Crosshead Bolts (each)

" Crank Pin

" Main Bearings

" Bolts in each

" Holding Down Bolts, each Engine

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?

yfs.
yfs.
Piston.
Piston.
Slide.
Stephenson Link.
Surface. Cooling Surface *1280* sq. ft.
4 3/4" Screwed part (bottom of thread) *3.16*
Mild steel.
4 1/4" Material *M.S.*
4 3/4" Length of Bearing *5 3/16"* Material
4 Diars. over Thrd. *2 1/8"* Thrds. per inch *8* Material *M.S.*
2 " *2 5/8"* " *6* " "
6 Lengths *10 7/8"*
2 Diars. over Thread *2 3/8"* Threads per inch *6* Material *M.S.*
40 Diars. *1 1/4"* No. of Metal Chocks *40*
built seat.

Connecting Rods, Forged by

Piston

Crossheads,

Connecting Rods, Finished by

Piston

Crossheads,

Date of Harbour Trial

" Trial Trip

Trials run at

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

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

Pressure in 1st I.P. Receiver,

Speed on Trial

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

data:—

Builders' estimated I.H.P.

Estimated Speed

Brown Bros. Stockton.
Yale Locom. Co.
Brown Bros.
Smiths & Co. Ltd.

17-6-25.

31-8-25.

Between Isles / Lyme.

yfs.

1229

Revs. per min. *152*

60.8 lbs., 2nd I.P.,

lbs., L.P., *11.6* lbs., Vacuum, *24* ins.

13.6 knots.

Revs. per min.



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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

" 1st " Wheel

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion

" 2nd " Wheel

Estimated Pressure per lineal inch

Revs. per min. of H.P. Turbines at Full Power S.H.P.

If the Conditions on Trial were such that full power could not be obtained give

" " 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 MACHINERY DESCRIPTION OF INSTALLATION.

No. of Turbo-Generators per

Type of Turbines employed

Description of Generators

No. of Motors driving Propeller Shafts

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

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 H.P. Turbines at Full Power

If the Conditions on Trial were such that full power could not be obtained give

" " 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



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SHAFTING.

Are the Crank Shafts Built or Solid?

Built.

No. of Lengths in each

4

Angle of Cranks

120°

Diar. by Rule

8.25"

Actual

8 1/2"

In Way of Webs

8 7/8"

" of Crank Pins

8 3/4"

Length between Webs

11"

Greatest Width of Crank Webs

24"

Thickness

5 1/4"

Least " " "

13"

"

5 1/4"

Diar. of Keys in Crank Webs

1 1/2"

Length

4"

" Dowels in Crank Pins

1"

Length

3 1/2"

Screwed or Plain

plain.

No. of Bolts each Coupling

6

Diar. at Mid Length

2"

Diar. of Pitch Circle

12 1/2"

Greatest Distance from Edge of Main Bearing to Crank Web

3 1/6"

Type of Thrust Blocks

adj. No. 100 steel. Shoe Type.

No. " Rings

6

Diar. of Thrust Shafts at bottom of Collars

8 1/2"

No. of Collars

6

" " Forward Coupling

8 1/2"

At Aft Coupling

8 1/2"

Diar. of Intermediate Shafting by Rule

Actual

No. of Lengths

No. of Bolts, each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

Diar. of Propeller Shafts by Rule

8.4"

Actual

8 7/8"

At Couplings

8 1/2"

Are Propeller Shafts fitted with Continuous Brass Liners?

continuous.

Diar. over Liners

10.0"

Length of After Bearings

14.0 1/2"

Of what Material are the After Bearings composed?

Signum Vitae.

Are Means provided for lubricating the After Bearings with Oil?

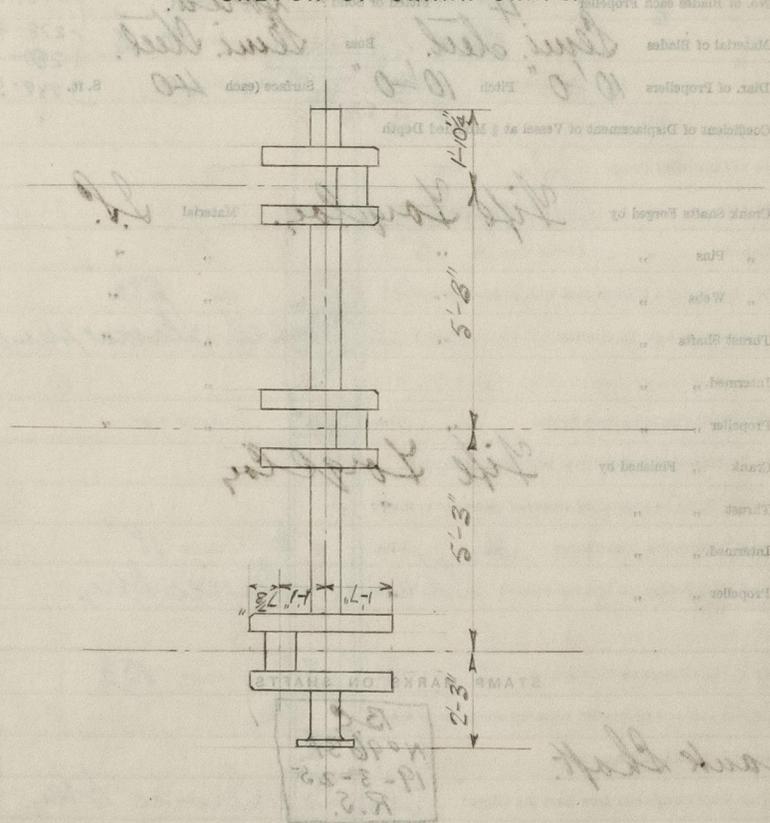
no

" " to prevent Sea Water entering the Stern Tubes?

no.

If so, what Type is adopted?

SKETCH OF CRANK SHAFT.



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new propeller C.S. 8/20
 C.S. 274, dia 10'-0" Pitch 9'-5"

No. of Blades each Propeller *4* Fitted or Solid? *solid.* C. 273
 Material of Blades *Semi. Steel.* Boss *Semi. Steel.* 278-9
 280-1
 Diam. of Propellers *10'-0"* Pitch *10'-0"* Surface (each *140* S. ft. 282-3
 274

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

Crank Shafts Forged by *Life Forge Co.* Material *S.S.*
 „ Pins „ „ „ „
 „ Webs „ „ „ „ „
 Thrust Shafts „ „ „ „ „
 Interned. „ „ „ „ „
 Propeller „ „ „ „ „
 Crank „ Finished by *Life Forge Co.*
 Thrust „ „ „ „ „
 Interned. „ „ „ „ „
 Propeller „ „ „ „ „

STAMP MARKS ON SHAFTS.

Crank Shaft.

B.C.
 No 9631
 19-3-25
 R.S.

Thrust / Tail Shaft

B.C.
 No 9631
 9-4-25
 R.S.

Share Tail Shaft.

B.C.
 No 9631
 9-4-25
 R.S.

SKETCH OF PROPELLER SHAFT.



BOILERS.

Works No. 8864.
 No. of Boilers 1 Type Cylindrical multitubular.
 Single or Double-ended single
 No. of Furnaces in each 3.
 Type of Furnaces Morrison.
 Date when Plan approved 15/12/24
 Approved Working Pressure 200 lb. □
 Hydraulic Test Pressure 350 "
 Date of Hydraulic Test 24/3/25
 " when Safety Valves set 17-6-25.
 Pressure at which Valves were set 206 lbs.
 Date of Accumulation Test 17-6-25.
 Maximum Pressure under Accumulation Test 210 lbs.
 System of Draught Howdens C.A. (coal fired).
 Can Boilers be worked separately? Yes.
 Makers of Plates D. Colville Sons. ✓
 " Stay Bars R. B. & J. Co. Ltd.
 " Rivets Leeds Forge Coy.
 " Furnaces
 Greatest Internal Diam. of Boilers 15'-0"
 " " Length " 12'-0"
 Square Feet of Heating Surface each Boiler 2600.
 " " Grate " " 63 sq ft
 No. of Safety Valves each Boiler 2 Rule Diam. Actual 3"
 Are the Safety Valves fitted with Easing Gear? yes.
 No. of Pressure Gauges, each Boiler 2 No. of Water Gauges 2
 " Test Cocks " none. " Salinometer Cocks 1

Are the Water Gauges fitted direct to the Boiler Shells or mounted on Pipes? Direct to shell
 Are the Water Gauges fitted direct to the Boiler Shells or connected by Pipes?
 Are lines from connected to Boilers by Cocks or Valves?
 Are Blow-off Cocks or Valves fitted on Boiler Shells?
 No. of Stakes of Shell fitting in each Boiler 1
 Plates in each Stakes 2
 Thickness of Shell Plates Approved 1 1/2"
 " in Boiler " " 1 1/2"
 Are the Rivets Iron or Steel? Steel
 Are the longitudinal seams butt or Lap Joints? Butt
 Are the Butt Straps Single or Double? Double
 Are the Double Butt Straps of equal width? Yes
 Thickness of outside Butt Straps 1/2"
 " inside " " 1/2"
 Are longitudinal seams Hand or Machine Riveted? Machine
 Are they Single, Double, or Triple Riveted? Double
 No. of Rivets in a Butt 15"
 Diam. of Rivet Heads 1 1/2"
 No. of Rows of Rivets in Centre Circumferential Seams No. 2
 Are these Seams Hand or Machine Riveted? Machine
 Diam. of Rivet Heads 1 1/2"
 No. of Rows of Rivets in Longitudinal Seams 2
 Are these Seams Hand or Machine Riveted? Machine
 Diam. of Rivet Heads 1 1/2"
 No. of Rows of Rivets in Back End Circumferential Seams 2
 Are these Seams Hand or Machine Riveted? Machine
 Diam. of Rivet Heads 1 1/2"
 No. of Rows of Rivets in Back End Longitudinal Seams 2
 Are these Seams Hand or Machine Riveted? Machine
 Diam. of Rivet Heads 1 1/2"
 Dimensions of Compensating Rings 8-10 x 5-7 x 1 1/2"



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Diar. of Stays Approved Threads per Inch

" " in Boilers

Material

$2\frac{1}{2}" \times 6$
 15
 Steel

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?

$\frac{3}{32}"$
 $13\frac{1}{2}" \times 7\frac{1}{2}"$
 None
 $\frac{3}{8}"$
 Yes.

Thickness of Back Tube Plates Approved

" " " in Boilers

Pitch of Stay Tubes in Back Tube Plates

" Plain "

Thickness of Stay Tubes

" Plain "

External Diar. of Tubes

Material

$2\frac{1}{2}"$
 $\frac{3}{32}"$
 $7\frac{1}{2}" \times 7\frac{1}{2}"$
 $3\frac{3}{4}" \times 3\frac{3}{4}"$
 $7\frac{1}{16}" \times 8\frac{1}{16}"$
 $9\frac{1}{2}" \times 9\frac{1}{2}"$
 $2\frac{1}{2}"$
 Iron

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diar. of Furnaces

Length between Tube Plates

$5\frac{7}{8}"$
 $3' - 7\frac{3}{4}"$
 $8' - 0"$

Width of Combustion Chambers (Front to Back)

Thickness of " " Tops Approved

" " " in Boilers

Pitch of Screwed Stays in O.C. Tops

$3' - 2"$ as box
 $\frac{23}{32}"$
 " "
 $10 \times 9"$

Threads per Inch

Diar. of Screwed Stays Approved

" " " in Boilers

Material

$1\frac{1}{2}" \times 15$
 Steel

Thickness of Combustion Chamber Backs Approved

" " " in Boilers

Pitch of Screwed Stays in O.C. Tops

Diar. of " " Approved

" " " in Boilers

Material

$1\frac{1}{2}" \times 15$
 $13\frac{1}{2}" \times 7\frac{1}{2}"$
 $3\frac{3}{4}" \times 3\frac{3}{4}"$
 $7\frac{1}{16}" \times 8\frac{1}{16}"$
 $9\frac{1}{2}" \times 9\frac{1}{2}"$
 $2\frac{1}{2}"$

Thickness of Combustion Chamber Backs Approved

" " " in Boilers

Pitch of Screwed Stays in O.C. Tops

Diar. of " " Approved

" " " in Boilers

Material

$1\frac{1}{2}" \times 15$
 $13\frac{1}{2}" \times 7\frac{1}{2}"$
 $3\frac{3}{4}" \times 3\frac{3}{4}"$
 $7\frac{1}{16}" \times 8\frac{1}{16}"$
 $9\frac{1}{2}" \times 9\frac{1}{2}"$
 $2\frac{1}{2}"$

Are all screw stays fitted with nuts inside O.C.?

Thickness of Combustion Chamber Bottoms

No. of Stays over each Wing Chamber

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Diar. of Screwed Stays Approved Threads per Inch

" " " in Boilers

1 3/4" x 9
Stal

Material " "

Thickness of Combustion Chamber Sides Approved

" " " " in Boilers

3/32"
9 x 9"

Pitch of Screwed Stays in C.O. Sides

Diar. " " Approved

Threads per Inch

" " " in Boilers

1 3/4" 9
Stal

Material " "

Thickness of Combustion Chamber Backs Approved

" " " " in Boilers

3/32"
9 x 8 1/4"

Pitch of Screwed Stays in C.O. Backs

Diar. " " Approved

Threads per Inch

" " " in Boilers

1 3/4" x 1 1/8" - 9
Stal

Material " "

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

Yes
15/16"

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

4

" " " Centre "

2

Depth and Thickness of Girders

10' x 3/4"
Stal

Material of Girders

No. of Stays in each

3

No. of Tubes, each Boiler

268

Size of Lower Manholes

16 x 12"

VERTICAL DONKEY BOILERS

No. of Boilers	Type	Height	Grate Iron Diar.	Height of Boiler Crown above Fire Grate	Are Boiler Crowns Flat or Dished?	Internal Radius of Dished Boilers	Thickness of Plates	Description of Beams in Boiler Crown	Diar. of Rivet Holes	Pitch	Height of Firebox Crown above Fire Grate	Are Firebox Crowns Flat or Dished?	External Radius of Dished Crowns	Thickness of Plates	No. of Crown Stays	Diar.	Material	Thickness of Plates	Bottom	External Diar. of Firebox at Top	No. of Water Tubes	First Diar.	Thickness	Material of Water Tubes	Size of Manhole in Shell	Dimensions of Compressing Ring	Working Surface, each Boiler	Grate Surface

SUPERHEATERS

Description of Superheaters	Where situated?	When Boilers are connected to Superheaters?	Can Superheaters be shut off while Boilers are working?	No. of Safety Valves in each Superheater	Diaphr. between Boilers	Diaphr. between Superheaters	Date when Safety Valves set



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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

Diar. of Rivet Holes Pitch Width of Overlap

Height of Firebox Crowns above Fire Grate

Are Firebox Crowns Flat or Dished?

External Radius of Dished Crowns Thickness of Plates

No. of Crown Stays Diar. Material

External Diar. of Firebox at Top Bottom Thickness of Plates

No. of Water Tubes Ext. Diar. Thickness

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Compensating Ring

Heating Surface, each Boiler Grate Surface

SUPERHEATERS.

Description of Superheaters

Where situated?

Which Boilers are connected to Superheaters?

Can Superheaters be shut off while Boilers are working?

No. of Safety Valves on each Superheater Diar.

Are " " fitted with Easing Gear?

Date of Hydraulic Test Test Pressure

Date when Safety Valves set Pressure on Valves

MAIN STEAM PIPES

No. of Pipes

Material

External Diar. or Radius

Internal Diar.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Joints

Material

External Diar. or Radius

Internal Diar.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

No. of Joints

Material

External Diar. or Radius

Internal Diar.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure



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MAIN STEAM PIPES.

No. of Lengths	3
Material	copper.
Brazed, Welded or Seamless	S.D.
Internal Diar.	4"
Thickness	5 W.P.
How are Flanges secured?	braked.
Date of Hydraulic Test	8-6-25
Test Pressure	400 lbs.

No. of Lengths	
Material	
Brazed, Welded or Seamless	
Internal Diar.	
Thickness	
How are Flanges secured?	
Date of Hydraulic Test	
Test Pressure	

No. of Lengths	
Material	
Brazed, Welded or Seamless	
Internal Diar.	
Thickness	
How are Flanges secured?	
Date of Hydraulic Test	
Test Pressure	

EVAPORATORS

1 Pair brass feed pumps 6" x 1 1/2"

FEED WATER HEATERS

1 Pair brass feed pumps 6" x 1 1/2"

FEED WATER FILTERS

1 Pair brass feed pumps 6" x 1 1/2"



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REFRIGERATORS.

No. of Machines

Capacity of each

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.

COMPARTMENT.	Temp. at beginning of Trial.	Temp. at end of Trial.	Time required to obtain this Result.	Rise of Temp. after hours.
Machine No. 1	34	33	1/2	0
Machine No. 2	34	33	1/2	0
Machine No. 3	34	33	1/2	0
Machine No. 4	34	33	1/2	0
Machine No. 5	34	33	1/2	0
Machine No. 6	34	33	1/2	0
Machine No. 7	34	33	1/2	0
Machine No. 8	34	33	1/2	0
Machine No. 9	34	33	1/2	0
Machine No. 10	34	33	1/2	0
Machine No. 11	34	33	1/2	0
Machine No. 12	34	33	1/2	0
Machine No. 13	34	33	1/2	0
Machine No. 14	34	33	1/2	0
Machine No. 15	34	33	1/2	0
Machine No. 16	34	33	1/2	0
Machine No. 17	34	33	1/2	0
Machine No. 18	34	33	1/2	0
Machine No. 19	34	33	1/2	0
Machine No. 20	34	33	1/2	0
Machine No. 21	34	33	1/2	0
Machine No. 22	34	33	1/2	0
Machine No. 23	34	33	1/2	0
Machine No. 24	34	33	1/2	0
Machine No. 25	34	33	1/2	0
Machine No. 26	34	33	1/2	0
Machine No. 27	34	33	1/2	0
Machine No. 28	34	33	1/2	0
Machine No. 29	34	33	1/2	0
Machine No. 30	34	33	1/2	0

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



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Installation Fitted by *R. Pickersgil Sons Ltd.*

No. and Description of Dynamos *1 Compound wound.*

Makers of Dynamos *J. H. Holmes Newcastle.*

Capacity *45* Amperes, at *100* Volts. *400* Revols. per Min.

Current Alternating or Continuous *Continuous*

Single or Double Wire System *Double*

Position of Dynamos *Starboard Side, Starling Platform*

Main Switch Board *Engine Room Starboard Bulkhead.*

No. of Circuits to which Switches are provided on Main Switch Board *5*

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.
<i>after accommodation</i>	<i>7</i>	<i>210 watts.</i>	<i>2.1</i>	<i>7/029</i>			<i>600 meg.</i>
<i>Engine Room Cockhold</i>	<i>11</i>	<i>330 watts.</i>	<i>3.3</i>	<i>7/029</i>			
<i>Midships Crews.</i>	<i>19</i>	<i>540 watts.</i>	<i>6</i>	<i>7/036</i>			
<i>Wireless</i>	<i>1/2 K.W.</i>		<i>5</i>	<i>7/044</i>			
<i>Navigation</i>	<i>6</i>	<i>180 watts.</i>	<i>1.8</i>	<i>7/044</i>			

Total No. of Lights *43* No. of Motors driving Fans, &c. *—* No. of Heaters *—*

Current required for Motors and Heaters *—*

ELECTRIC LIGHTING.

Installation Fitted by *R. Pickersgil Sons Ltd.*

No. and Description of Dynamos *1 Compound wound.*

Makers of Dynamos *J. H. Holmes Newcastle.*

Capacity *45* Amperes, at *100* Volts. *400* Revols. per Min.

Current Alternating or Continuous *Continuous*

Single or Double Wire System *Double*

Position of Dynamos *Starboard Side, Starling Platform*

Main Switch Board *Engine Room Starboard Bulkhead.*

No. of Circuits to which Switches are provided on Main Switch Board *5*

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.
<i>after accommodation</i>	<i>7</i>	<i>210 watts.</i>	<i>2.1</i>	<i>7/029</i>			<i>600 meg.</i>
<i>Engine Room Cockhold</i>	<i>11</i>	<i>330 watts.</i>	<i>3.3</i>	<i>7/029</i>			
<i>Midships Crews.</i>	<i>19</i>	<i>540 watts.</i>	<i>6</i>	<i>7/036</i>			
<i>Wireless</i>	<i>1/2 K.W.</i>		<i>5</i>	<i>7/044</i>			
<i>Navigation</i>	<i>6</i>	<i>180 watts.</i>	<i>1.8</i>	<i>7/044</i>			

Total No. of Lights *43* No. of Motors driving Fans, &c. *—* No. of Heaters *—*

Current required for Motors and Heaters *—*

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

None.

Particulars of these Circuits	No. of Circuits to which Switches are provided on this Switch Board	Main Switch Board	Location of Dynamo	Single or Double Wire System	Current Alternating or Continuous	Capacity	Means of Dynamo	No. and Description of Dynamo	Installation fitted by
Are Cut-outs fitted as follows?—									
On Main Switch Board, to Cables of Main Circuits		<i>Yls.</i>							
On Aux. " " each Auxillary Circuit		<i>Yls.</i>							
Wherever a Cable is reduced in size		<i>Yls.</i>							
To each Lamp Circuit		<i>Yls.</i>							
To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted		<i>Yls.</i>							
Are the Fuses of Standard Sizes?		<i>Yls.</i>							
Are all Switches and Cut-outs constructed of Non-inflammable Material?		<i>Yls.</i>							
Are they placed so as to be always and easily accessible?		<i>Yls.</i>							
Smallest Single Wire used, No. <i>1/044</i> S.W.G., Largest, No. <i>1/044</i> S.W.G.									
How are Conductors in Engine and Boiler Spaces protected?		<i>Had covered / Armoured cable.</i>							
" " Saloons, State Rooms, &c., " " ?		<i>Had covered / Armoured cable.</i>							
What special protection is provided in the following cases?—									
(1) Conductors exposed to Heat or Damp		<i>Had covered / Armoured</i>							
(2) " " passing through Bunkers or Cargo Spaces		<i>Had covered / Armoured</i>							
(3) " " Deck Beams or Bulkheads		<i>Had covered / Armoured</i>							

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?

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? *Yls.*

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

Has the Insulation Resistance over the whole system been tested? *Yls.*

What does the Resistance amount to? *2 Megohms.* Ohms.

Is the Installation supplied with a Voltmeter? *Yls.*

" " " an Ampere Meter? *Yls.*

Date of Trial of complete Installation *31-8-25* Duration of Trial *6 hours.*

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



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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; are the Plans and Boilers so placed that the Chief

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

Has the insulation Resistance over the whole system been tested?

What does the Resistance amount to?

Is the installation supplied with a Voltmeter?

an Ammeter?

Date of Trial of complete installation *31-8-25*

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

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

Is the Workmanship throughout thoroughly satisfactory? *yes.*

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

"SOUTHERN SPRAY"

as ascertained by ^{us} _{me} from personal examination

Ernest Witt (Boiler)
J. D. Stephens
Engineer Surveyor to the British Corporation for the
Survey and Registry of Shipping.

Fees—

MAIN BOILERS.

		£	s.	d.
H.S.	2600 Sq. ft.	21	13	0
G.S.	63 "	:	:	:

DONKEY BOILERS.

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

ENGINES.

L.P.C.	21-8	Cub. ft.	22	14	0
		£	:	:	:
Testing, &c.	£1		5	0	0
		£	:	:	:
Expenses			:	:	:
Total		£	49	7	0

It is submitted that this Report be approved,

Glenn King
Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the *14th* November 1925

Fees advised

Fees paid



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Secretary.

GENERAL CONSTRUCTION

Foot--

ALL THE WORK DONE BY THE CONTRACTOR IN CONNECTION WITH THE WORKING OF THE

MARY DOLLER

H.S.

2200

11 : 13.0 only

G.S.

63

DOUGLAS BOLLERS

H.S.

2

G.S.

RESIDUAL

L.E.C.

21-8

22.11.0

WORKING

2

2.0

REPORT

2

14.7.0

It is submitted that this Report be approved.

[Handwritten signature]

Approved by the Committee for the Class of M.B.S. on the 12th November 1952

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Approved by the Committee for the Class of M.B.S. on the 12th November 1952

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