

No. 2512

THE BRITISH CORPORATION REGISTER  
OF SHIPPING AND AIRCRAFT

Report No. <sup>2523</sup>~~1349~~ No. in Register Book <sup>4112</sup>

Unit 2 X

Ship, "Southern Isles"

Makers of Engines Bremer Vulkan

Works No. 726

Makers of Main Boilers Bremer Vulkan

Works No. 784

Makers of Donkey Boiler /

Works No. /

MACHINERY



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THE BRITISH CORPORATION REGISTER  
OF SHIPPING AND AIRCRAFT

Report No. *1389* No. in Register Book.....

Received at Head Office.....

Surveyor's Report on Engines, Boilers, and Auxiliary  
Machinery of Single Triple  
Twin Quadruple Screw *S., "Southern Isles"*

Official No.

Port of Registry

*Cape Town*

Registered Owners

*Southern Whaling & Sealing Co., Ltd.  
London E C 4*

Engines Built by

*Bremer Vulkan*

at

*Pegesack, Germany*

Main Boilers Built by

*Bremer Vulkan*

at

*Pegesack*

Donkey " "

at

Date of Completion

*22<sup>nd</sup> June 1936*

First Visit

*21/2/36*

Last Visit

*22/6/36*

Total Visits

*21*

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## GENERAL DESCRIPTION AND TRIAL PARTICULARS

Works No. **726** No. of Sets **1**  
 Description **3 cylinder, triple expansion**  
 Date of Harbour Trial **21st June 1936**  
 „ Trial Trip **22nd June 1936**  
 Trials run at **Baltic between Kiel and Eckernförde**  
 Were Engines tested at full power under Sea-going conditions? **yes**  
 Draught of Ship Loaded **11' 7"** Draught on Trial  
 R.H.P. or I.H.P. Developed, **1658** Revs. per Min. **180.5**  
 Boiler Pressure= **200** lbs. 1st I.P. Receiver= **85.5** lbs. 2nd I.P.= **15.5** lbs.  
 Mean Ind. Pressure= **H.P. 6.34 AT. 3.45 L.P. 1.22** Vacuum= **26.5"** lbs. Max. Initial Pressure= **196 lbs**  
 Speed of Ship on Trial **14.00** Knots.  
 Builder's estimated data:—  
 R.H.P. or I.H.P. **1560** Revs. per min. **176** Speed **14**

REMARKS

## RECIPROCATING STEAM ENGINES

No. of Cylinders each Engine **3** No. of Cranks **3**  
 Diars of Cylinders **410 x 660 x 1120** in Stroke **660** in  
 Cubic feet in each L.P. Cylinder **22.96**  
 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. „ „ „  
 „ 2nd I.P. „ „ „  
 „ L.P. „ **Double opening balanced slide valve**  
 „ Valve Gear **Stephenson**  
 „ Condenser **surface** Cooling Surface **1500** sq. ft.  
 Diar. of Piston Rods (plain part) **115** Screwed part (bottom of thread) **76.49** Material **J.S.**  
 „ Connecting Rods (smallest part) **108** Material **4**  
 „ Crosshead Gudgeons **120** Length of Bearing **140** Material **4**  
 No. of Crosshead Bolts (each) **4** Diar. over Thrd. **48** Thrds. per inch **7** Material **4**  
 „ Crank Pin „ „ **2** „ **64** „ **6** „ „  
 „ Main Bearing „ „ **2** „ **58** „ „ „  
 „ Main Bearings **6** Length of Bearings **290**  
 „ Holding Down Bolts, each Engine **64** Diar. **1 1/4"** No. of Chocks (Metal) **64 C. J.**  
 Are Engines bolted to Tank Top or to Built Seat? **to built seat**  
 Are Bolts tapped through Tank Top and fitted with Nuts Inside? **-**

If not, how are Bolts fitted? **with head below shipbuilding foundation.**  
 Holding down bolts originally designed to be 1", but afterwards increased to 1 1/4".

REMARKS

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## STEAM TURBINES

Type of Turbines

Arrangements of Turbines

No. of H.P. Rotors      I.P. Rotors      L.P. Rotors      Astern Rotors

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

Is Single or Double Reduction Gear used?

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

"      "      I.P.      "      "      "

"      "      L.P.      "      "      "

"      "      1st Reduction Shaft

"      "      2nd      "

Is Nodal Drive fitted?      Diar. of Shafts

Are arrangements such that Steam can be led direct to L.P. Turbine?

"      "      "      either H.P. or I.P. Turbine can exhaust direct to the Condenser?

Description of Lubricating Oil System

Diar. and No. Holding Down Bolts H.P. Turbine      I.P. Turbine      L.P. Turbine

Metal Chocks      "      "      "      "      "      "

Diar. and No. Holding Down Bolts for Gear Cases

REMARKS

## RECIPROCATING OIL ENGINES

Description

No. of Cylinders      Diar. of Cylinders      Stroke      No. of Cranks

Span between Bearing Edges      No. of Bearings

Maximum Initial Pressure      Mean Indicated Pressure      B.H.P.      Revs.

Flywheel: Diar.      Weight

Crankshaft Balance Weights      "      Radius of Gyration

Fuel Injection System      W.P.

Injection Air Compressors, No.      Diars.      Stroke      W.P.

No. of Injection Air Receivers      Capacity      W.P.      Type

Scavenge Air Units, No.      Driven by      "

Superchargers, No.      "      "

Cylinder cooling by      No. of Pumps      Driven by

Pistons      "      "      "      "      "

Lubrication Oil System      "      "      "      "      "

No. of Coolers      Purpose

Material Cylinder Covers      Liners      Pistons

Are Engines Reversible?      Is Gearing used?

How are Engines started?

No. of Starting Air Receivers      Capacity      W.P.      Type

"      of Exhaust Gas Boilers      W.P.      Is Oil Fuel used?      Purpose

Diar. of Piston Rods (plain part)      Screwed part (bottom of Thread)      Material

"      "      Connecting Rod (smallest part)      "

"      "      Crosshead Gudgeons      Length of Bearing      "

No. of Crosshead Bolts (each)      Diar. over Thread      Threads per inch      "

"      "      Crank Pin      "      "      "      "

"      "      Main Bearing Bolts      "      "      "      "

"      "      Holding Down Bolts      Diar. of Bolts      No. of Metal Chocks



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## RECIPROCATING OIL ENGINES, Contd.

Are Engines Bolted to Tank Top or to Built Seat?

,, Bolts tapped through the Tank Top and fitted with Nuts inside?

If not, how are they fitted?

No. of Auxiliary Engines,

Description

No. of Cylinders

Diar.

Stroke

No. of Cranks

Span between Bearing Edges

No. of Bearings

Max. Init. Press.

Mean Ind. Press.

B.H.P.

R.P.M.

No. of Aux. Air Compressors

Diar.

Stroke

W.P.

Driven by

,, ,, Holding Down Bolts

No. of Metal Chocks

REMARKS

## ELECTRIC PROPULSION GENERATORS AND MOTORS

Description of Generators

Makers of Generators

No. of Generators

How Driven

Capacity of each, Kw.

Amps.

Volts

Revs. per min.

Continuous or Alternating Current

Phases

Periods

Diar. of Armature Shaft

No. and length of Bearings

Type of Circuit Breakers

Cut out load

Description of Motors

Makers of Motors

No. of Motors

How Driven

Output of Motor (each), H.P.

Amps.

Volts

Revs. per min.

Diar. of Motor Shafts

No. and length of Bearings

Description of Boosters

Makers of Boosters

No. of Boosters

How Driven

Capacity of each, Kw.

Amps.

Volts

Revs. per min.

Description of Control and Switch Gear

REMARKS



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## REDUCTION GEARING

Is Single or Double Reduction Gearing employed?

Diar. of 1st Reduction Pinion

" 1st " Wheel

} Width

Pitch of Teeth

Estimated Pressure per lineal inch

Diar. of 2nd Reduction Pinion

" 2nd " Wheel

} Width

Pitch of Teeth

Estimated Pressure per lineal inch

Revs. per min. of 1st Red. Shaft

" " " " 2nd " "

## PROPELLERS

No. of Blades each Propeller

4

Fitted or Solid

solid

Material of Boss

cast iron

Material of Blades

cast iron

Diar. of Propellers

9'9"

Pitch

9'0"

Surface (each)

40

sq. ft.

No. of Studs for one Blade

—

Diar. of Studs

—

## FORGINGS

Piston Rods

forged by

Bremer Pulkan

Material

J. S.

Connecting Rods

" "

Th. Wuppermann

"

"

Crossheads

" "

Bremer Pulkan

"

"

Turbine Spindles

" "

"

"

" Wheels

" "

"

"

Reduction Gear Shafts

forged by

"

"

" " Wheel

" "

"

"

Generator Armature Shafts

" "

"

"

Motor

" "

" "

"

"

Crankshaft Pins

forged by

"

"

" End

" "

"

"

" Webs

" "

Th. Wuppermann

"

"

Thrust Shaft

" "

"

"

Intermediate Shaft

" "

"

"

Propeller

" "

" "

"

"

Piston Rods

finished by

Diar.

115"

Connecting Rods

" "

Bremer Pulkan

"

108"

Crossheads

" "

" "

"

120"

Turbine Spindles

" "

"

"

Reduction Gear Shafts

finished by

"

"

" " Wheels

" "

" "

"

"

Generator Armature Shafts

" "

" "

"

"

Motor

" "

" "

"

"

Crankshafts

" "

" "

"

"

Thrust Shafts

" "

" "

"

"

Intermediate

" "

" "

"

"

Propeller

" "

" "

"

"

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## SHAFTING

Are Crankshafts built or solid *built* No. of lengths in each *4* Angle of Cranks *120°*  
 Diar. of Shafts (Rule) *220* (Actual) *220* In way of Webs *222* Diar. of Crank Pins *220*  
 Span between Webs *304* Width of Webs *416* Thickness of Webs *136*  
 Diar. of Dowel in Crank Webs *22* Length and No. *908, 2* Type *round*  
 No. of Bolts each Coupling *6* Diar. at Mid Length *54* Diar. of Pitch Circle *320*  
 Greatest Distance from Edge of Main Bearing to Crank Web *7 1/2*  
 Diar. of Turbine Shafts (Rule) — (Actual) — No. and length of Bearings —  
 „ „ Gearing „ — „ — „ „ „ „ —  
 Type of Thrust Block *1 ring* No. of Rings *1*  
 Diar. of Thrust Shafts at bottom of Collars *216* No. of Collars *1*  
 „ „ Forward Coupling *216* At Aft Coupling *216*  
 Diar. of Intermediate Shafting (Rule) *216* (Actual) *220* No. of Lengths *1 x 2930*  
 No. of Bolts, each Coupling *6* Diar. at Mid Length *54* Diar. of Pitch Circle *320*  
 Diar. of Propeller Shafts (Rule) *226* (Actual) *227/26* At Coupling *220*  
 Are Propeller Shafts fitted with Continuous Brass Liners? *yes* Diar. over Liners *256/57*  
 Length of After Bearings *1076* Of what Material is After Bearing made? *lignum vitae*  
 Are Means provided for Oil Lubrication of After Bearing? *no*  
 What means are adopted to prevent Sea Water entering Stern Tubes? —

## LIST OF MARKS STAMPED ON SHAFTS

*Crank shaft* 9873/7332/53 B.C. 23.11.35.  
*Thrust* „ 103 B.C. 7591/10074/1. (M) 36.  
*Interm.* „ 7601/10074/112 (M) 1. B.C. 36.  
*Tail* „ 10074/7591 B.C. 106/1. (M) 36.  
*Spare* „ „ 10074/7601 B.C. 111/1. (M) 36.

## SKETCH OF CRANK SHAFTS

*See sketch of S.S. 723 and plan approved 29/8/35.*



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## STEAM PUMPS, &amp;c. NOTES

No. of Air Pumps *1*      Diar. *19"*      Stroke *15"*Worked by Main or Independent Engines? *independent*No. of Circulating Pumps *1*      Diar. *700 Zm*      Stroke *—*Type of *centrifugal*Diar. of *"* Suction from Sea *225 Zm*Has each Pump a Bilge Suction with Non-return Valve? *yes*      Diar. *150*What other Pumps can circulate through Condenser? *general service pumps*No. of Feed Pumps on Main Engine *—*      Diar. *—*      Stroke *—*Are Spring-loaded Relief Valves fitted to each Pump? *yes*Can one Pump be overhauled while the others are at work? *yes*No. of Independent Feed Pumps *2*      Diar. *160*      Stroke *450*What other Pumps can feed the Boilers? *general service pumps*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 *1*What other Pumps can draw from the Bilges? *general service pumps and ejector*Are all Bilge Suctions fitted with Roses? *yes*Are the Valves, &c., so arranged as to prevent unintentional connection between Sea and Bilges? *yes*Are all Sea Connections made with Valves or Cocks next the Ship's sides? *yes*Are they placed so as to be easily accessible? *yes*Are the Discharge Chests placed above or below the Deep Load Line? *above*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*

## ETCH OF PROPELLER SHAFTS

*See sketch S.S. 723 and plan approved 9/9/35.*

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## BOILERS

Works No. **784**No. of Boilers **1** Type **multitubular**Single or Double-ended **single ended**No. of Furnaces in each **3**Type of Furnaces **Morison**Date when Plan approved **24/8/35**Approved Working Pressure **14 atm. = 200 lbs.**Hydraulic Test Pressure **350 lbs.**Date of Hydraulic Test **25. 3. 36**„ when Safety Valves set **21. 6. 36**Pressure at which Valves were set **200 lbs.**Date of Accumulation Test **21. 6. 36**Maximum Pressure under Accumulation Test **203 lbs.**System of Draught and Fuel **forced draught, c. a., oil**Can Boilers be worked separately? **—**Makers of Plates **Deutsche Röhrenwerke A. G.****Stahl & Walzwerk Thyssen**„ Stay Bars **Klöckner Werke A. G. Georgsmarienhütte**„ Rivets **A. Sbernberg, Soest**„ Furnaces **Deutsche Röhrenwerke A. G.**Greatest Internal Diam. of Boilers **4800 mm**„ „ Length „ **3691 „**Square Feet of Heating Surface each Boiler **3390**„ „ Grate „ „ **—**No. of Safety Valves each Boiler **2**

Rule Diam.

Actual **2 x 100 mm**

Are the Safety Valves fitted with Easing Gear?

**yes**No. of Pressure Gauges, each Boiler **2**No. of Water Gauges **2**„ Test Cocks „ **3**„ Salinometer Cocks **1**

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

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

Are these Pipes connected to Boilers by Cocks or Valves? *by valves*

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

No. of Strakes of Shell Plating in each Boiler *1*

„ Plates in each Strake *1*

Thickness of Shell Plates Approved *34 Zn*

„ „ in Boilers *34 "*

Are the Rivets Iron or Steel? *steel*

Are the Longitudinal Seams Butt or Lap Joints? *butt straps*

Are the Butt Straps Single or Double? *double*

Are the Double Butt Straps of equal width? *yes*

Thickness of outside Butt Straps *30 Zn*

„ inside „ *30 "*

Are Longitudinal Seams Hand or Machine Riveted? *machine riveted*

Are they Single, Double, or Treble Riveted? *triple riveted*

No. of Rivets in a Pitch *5*

Diar. of Rivet Holes *38 Zn* Pitch *245 Zn*

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 *2*

Are these Seams Hand or Machine riveted? *hydraulically riveted*

Diar. of Rivet Holes *35 Zn* Pitch *102.5 Zn*

No. of Rows of Rivets in Back End Circumferential Seams *2*

Are these Seams Hand or Machine Riveted? *hand riveted*

Diar. of Rivet Holes *35 Zn* Pitch *102.5 Zn*

Size of Manholes in Shell *320 x 420 "*

Dimensions of Compensating Rings *960 x 1060 "*



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Thickness of End Plates in Steam Space Approved *30.5 mm*  
 " " " " " in Boilers *30.5 "*  
 Pitch of Steam Space Stays *520 x 500 "*  
 Diam. " " " " Approved *80* Threads per Inch *6*  
 " " " " in Boilers *80* " *6*  
 Material of " " " *steel*  
 How are Stays Secured? *by nuts*  
 Diam. and Thickness of Loose Washers on End Plates *—*  
 " " Riveted " " " *350 Z φ, 22 mm thick.*  
 Width " " Doubling Strips " " *—*

Thickness of Middle Back End Plates Approved

" " " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Stays at " " " "

Diam. of Stays Approved Threads per Inch

" " in Boilers "

Material "

Are Stays fitted with Nuts outside?

Thickness of Back End Plates at Bottom Approved *24 mm*

" " " " " in Boiler *24 "*

Pitch of Stays at Wide Spaces between Fireboxes *240 x 210 mm*

Thickness of Doublings in " " *—*

Thickness of Front End Plates at Bottom Approved *25 mm*

" " " " " in Boilers *25 "*

No. of Longitudinal Stays in Spaces between Furnaces *2*



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Diar. of Stays Approved *56 Zn* Threads per Inch *6*" " in Boilers *56 "*Material *steel*Thickness of Front Tube Plates Approved *25 Zn*" " " in Boilers *25 "*Pitch of Stay Tubes at Spaces between Stacks of Tubes *188 x 345 Zn*Thickness of Doublings in " " " *—*" Stay Tubes at " " " *9 "*Are Stay Tubes fitted with Nuts at Front End? *no*Thickness of Back Tube Plates Approved *22 Zn*" " " in Boilers *22 "*Pitch of Stay Tubes in Back Tube Plates *188 x 285 Zn*" Plain " *95 x 94 "*Thickness of Stay Tubes *7 "*" Plain " *4.06 "*External Diar. of Tubes *63.5 "*Material *steel*Thickness of Furnace Plates Approved *16.5 "*" " " in Boilers *16.5 "*Smallest outside Diar. of Furnaces *1183 "*Length between Tube Plates *2470 "*Width of Combustion Chambers (Front to Back) *900 "*Thickness of " " Tops Approved *17.5 "*" " " in Boilers *17.5 "*Pitch of Screwed Stays in C.C. Tops *213.7 x 200 "*

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Diar. of Screwed Stays Approved *57 & 51* Threads per Inch *9*

" " " in Boilers *57 & 51*

Material " " *steel*

Thickness of Combustion Chamber Sides Approved *17.5 mm*

" " " in Boilers *17.5 "*

Pitch of Screwed Stays in C.O. Sides *210 x 240 "*

Diar. " " Approved *38 mm* Threads per Inch *9*

" " " in Boilers *38 "*

Material " " *steel*

Thickness of Combustion Chamber Backs Approved *16.5 mm*

" " " in Boilers *16.5 "*

Pitch of Screwed Stays in C.O. Backs *213.75 x 200 "*

Diar. " " Approved *53, 47, 41, 35* Threads per Inch *9*

" " " in Boilers *" " " "*

Material " " *steel*

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

Thickness of Combustion Chamber Bottoms *22 mm*

No. of Girders over each Wing Chamber *4*

" " " Centre " *4*

Depth and Thickness of Girders *240 and 22.5 mm*

Material of Girders *steel*

No. of Stays in each *3*

No. of Tubes, each Boiler *496*

Size of Lower Manholes *300 x 400 mm*



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## SUPERHEATERS

Date when Safety Valves set \_\_\_\_\_ Pressure on Valves \_\_\_\_\_

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## MAIN PRESSURE PIPES

No. of Lengths	3
Material	copper
Brazed, Welded or Seamless	seamless
Internal Diam.	110 mm
Thickness	5.5"
How are Flanges secured?	welded
Date of Hydraulic Test	4.6.36.
Test Pressure	50 Atm.

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	

## DESCRIPTION OF OIL FUEL INSTALLATION

Oil pumped to burners by simplex pressure pumps.

## LIST OF HYDRAULIC TESTS

Main boiler	test pr. 350 lbs.	25.3.36.
Air vessel (W. P. 7 atm)	" "	14 Atm. 25.3.36.
Receiver pipes	" "	11 " 15.4.36
Expansion pieces	" "	11 " 15.4.36
C. J. m. s. p. T piece	" "	28 " 15.4.36
H. P. cylinder	" "	21 "
J. P. "	" "	11 "
L. P. "	" "	2 "
Oil heaters	" "	28 " 15.6.36
Main steam pipes	" "	50 " 4.6.36
C. J. m. s. p. T piece	" "	28 " 4.6.36
Feed water pipes	" "	50 " 16.6.36



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## EVAPORATORS

No. 1 Type surface Tons per Day  
 Makers Ablas Werke, Bremen  
 Working Pressure 15.5 At. Test Pressure 38.75 Date of Test 18/4/36  
 Date of Test of Safety Valves under Steam

## FEED WATER HEATERS

No. 1 Type surface  
 Makers Ablas Werke, Bremen  
 Working Pressure 15.5 At. Test Pressure 38.75 Date of Test 18/4/36

## FEED WATER FILTERS

No. 2 Type coke filters Size 290 Ø  
 Makers Bremer Vulkan  
 Working Pressure 200 lbs. Test Pressure 400 lbs. Date of Test 16.6.36

## STEERING ENGINE

No. 1 Type key, vertical Size 21.6.36  
 Makers M. Achgelis Söhne

## WINDLASS

No. 1 Type key, vertical Size 21.6.36  
 Makers M. Achgelis Söhne

## LIST OF AUXILIARY MACHINERY

2 feed water pumps  
 1 air pump  
 1 bilge pump  
 1 general service pump  
 1 circulating pump  
 1 fan engine  
 1 bilge ejector  
 1 fuel transfer pump  
 2 oil fuel service pumps  
 1 dynamo



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## SPARE GEAR

No. of Top End Bolts	2	No. of Bot. End Bolts	2	No. of Cylinder Cover Studs	6
" Coupling Bolts	6	" Main Bearing Bolts	2	" Valve Chest "	6
" Junk Ring Bolts	9	" Feed Pump Valves	1 set	" Bilge Pump Valves	1 set
" H.P. Piston Rings	—	" I.P. Piston Rings	—	" L.P. Piston Rings	—
" " Springs	—	" " Springs	—	" " Springs	—
" Safety Valve "	—	" Fire Bars	—	" Feed Check Valves	2
" Piston Rods	—	" Connecting Rods	—	" Valve Spindles	1
" Air Pump Rods	—	" Air Pump Buckets	—	" Air Pump Valves	1 set
" Cir. "	—	" Cir. "	—	" Cir. "	1 set
" Crank Shafts	—	" Crank Pin Bushes	—	" Crosshead Bushes	—
" Propeller Shafts	1	" Propellers	1	" Propeller Blades	—
" Boiler Tubes	8	" Condenser Tubes	12	" Condenser Ferrules	25

## OTHER ARTICLES OF SPARE GEAR:—

1 set of suction and delivery valves for each pump  
 1 impellor and shaft for circulating. "  
 1 steam valve chest } for feed pumps  
 6 bucket rings  
 1 set of 4 piston rings  
 1 piston rod  
 1 valve rod } for fan eng.  
 1 set of bearings with bolts  
 1 eccentric sheave with straps  
 Lockwood & Carlisle piston rings also for  
 piston valves.  
 1 bottom end bearing  
 1 eccentric strap

## DETAILS OF FIRE EXTINGUISHING APPARATUS

Minimax fire extinguisher.  
 Hose for deck wash line.



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## REFRIGERATING PLANT

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

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

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## ELECTRIC INSTALLATION

Installation Fitted by *Allgem. Elektr. Ges.*

Makers of Dynamos " " "

Description of Dynamos *Compound*No. of Dynamos *1* Revs. *400* Amps. *39* Volts *115* Total Capacity *4.5* Kw.Current, Alternating or Continuous *continuous* System of Wiring *2 pool*Position of Dynamos *Eng. R. sbb.*Makers of Prime Movers *Bahn & Kähler*Description of Prime Movers *1 cyl. steam eng.*Position of Main Switch Board *sbb. aft Eng. R. bkhd.*No. of Circuits to which Switches are provided on Main Switch Board *9*Particulars of these Circuits *for light and wireless*

Circuit	Number of Lights	Number of Motors	Number of Heaters	Current Required. Amps.	Size of Cable	Rated Maximum Capacity	Insulation Covering	Resistance per Mile Insulation
<i>No. 1</i>	<i>Eng. &amp;</i>	<i>—</i>	<i>—</i>	<i>6 Amps.</i>	<i>1.5 mm<sup>2</sup></i>		<i>Heavy</i>	
<i>" 2</i>	<i>Blr. R.</i>	<i>—</i>	<i>—</i>	<i>6 "</i>	<i>"</i>	<i>"</i>	<i>Cable</i>	
<i>" 3</i>	<i>Plugs</i>	<i>—</i>	<i>—</i>	<i>6 "</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>" 4</i>	<i>Wireless</i>	<i>—</i>	<i>—</i>	<i>15 "</i>	<i>6</i>	<i>"</i>	<i>"</i>	
<i>" 5</i>	<i>Spare</i>	<i>—</i>	<i>—</i>	<i>6 "</i>	<i>1.5</i>	<i>"</i>	<i>"</i>	
<i>" 6</i>	<i>Distribution sw. board aft</i>			<i>10 "</i>	<i>2.5</i>	<i>"</i>	<i>"</i>	
<i>" 7</i>	<i>Distribution sw. board amidsh.</i>			<i>15 "</i>	<i>2.5</i>	<i>"</i>	<i>"</i>	
<i>" 8</i>	<i>Distribution sw. board forw.</i>			<i>10 "</i>	<i>2.5</i>	<i>"</i>	<i>"</i>	
<i>" 9</i>	<i>7 Navigation lights</i>			<i>10 "</i>	<i>2.5</i>	<i>"</i>	<i>"</i>	
Total	<i>69</i>	<i>—</i>	<i>—</i>					

## POSITIONS OF AUXILIARY SWITCH BOARDS

One in messroom amidships  
 " " crew's space forward  
 " " engineer's " aft

No. of Switches  
on each

Nature of Insulation, &amp;c., passing through Bunkers and Cargo Spaces

*steel pipe*

" " " " " " " " Deck Beams and Bulkheads

*bkhd. stuffing boxes*Are all Joints in Cables efficiently made, effectively Insulated  
and readily accessible*yes*Have Special Requirements for Ships carrying Low Flash Oil  
been complied with*no*Has it been ascertained by actual Tests that Compasses are not  
injuriously affected*yes*

What is the Insulation Resistance over the whole System?

Have the Governing Trials proved satisfactory?

*yes*

Date of Trial of complete Installation

*21. 6. 36*

Duration of Trial

*2 hours*

Are Cut-outs fitted as follows (to both Conductors of Two-Conductor Systems):—

On Main Switch Board to Cables of each Main Circuit?

*yes*

On Auxiliary Switch Boards to Cables of each Aux. Circuit?

*yes*

Wherever a Cable is reduced in size?

*yes*

To each Lamp Circuit?

*yes*

Are all Cut-outs and Switches easily accessible?

*yes*

Are Fuses of standard sizes?

*yes*

Smallest Conductor used

*1.5 mm<sup>2</sup>*

Largest single wire Conductor used

*—*

Nature of Insulation and Protective Covering of Cables in Engine and Boiler Spaces

*Rubber with iron armature*

"

"

"

in Saloons, State Rooms, &amp;c.

*rubber with lead*

"

"

"

Insulated Spaces

*—*

"

"

"

Exposed to Heat or Damp

*—*

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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.

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 Isles"

as ascertained by <sup>me</sup> from personal examination

*C. M. Johns.*

Surveyor to the British Corporation Register  
of Shipping and Aircraft.

It is submitted that this Report be approved,

*W. H. King*  
Chief Surveyor.

22 SEP 1937

Approved by the Committee for the Class of M.B.S.\* on the

*L. H. Enslin*  
Secretary.



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## GENERAL CONSTRUCTION

NOTE: The following information is intended to provide a general overview of the construction of the building.

Estimated cost: \$250,000

The building was constructed in 1937 and is located at 1234 Main Street, New York, NY.

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*C. H. Johnson*

Architect

*Thomson*

Engineer

20-SEP-1937

1234 Main Street, New York, NY

*Thomson*



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