

No. 2239

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 2249 No. in Register Book 3664.

" K O S. VI "

S.S. *K O S. VI*

Makers of Engines *Swanwick Dock Co Ltd*

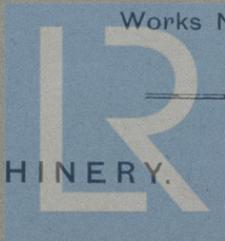
Works No. *334*

Makers of Main Boilers *Blair (1926) Ltd*

Works No. *C. 200*

Makers of Donkey Boiler *✓*

Works No. *✓*



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BRITISH

No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

18th December 1929

Surveyor's Report on the New Engines, Boilers, and Auxiliary Machinery of the ~~Single Triple~~ ~~Twin Quadruple~~ Screw *Whaler*.

"KOS. VI"

Official No.

Port of Registry

Candeyoid

Registered Owners

Woolfangerelskabet - Kongsbukt

Engines Built by

Swinty Dock Co. Ltd.
South Park-on-Sea

at

Main Boilers Built by

Blair Co. (1926) Ltd.
Stockton-on-Sea

at

Donkey

at

Date of Completion

6-29

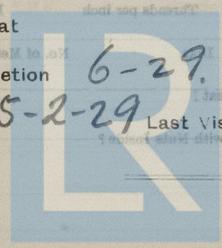
First Visit

25-2-29

Last Visit

11-6-29

Total Visits 30



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RECIPROCATING ENGINES.

Works No. **334** No. of Sets **1** Description **Trip to expansion Co. Berks.**

No. of Cylinders each Engine **3.** No. of Cranks **3.**
 Diars. of Cylinders **14" 23" 39"** Stroke **24"**
 Cubic feet in each L.P. Cylinder **16.6**

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

Diar. 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?

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, **6 1/2** lbs., 2nd I.P.,

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.

Smiths Dock Co Ltd

11-6-29.

11-6-29.

In North Sea.

Yls.

Revs. per min. **150**

Pressure in 1st I.P. Receiver, **6 1/2** lbs., 2nd I.P., **10.8** lbs., L.P., **25** ins.

Speed on Trial *no speed taken.*

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



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No. of Blades each Propeller *1* Ritted or Solid? *1*
 Material of Blades *Same as K03.1*
 Diam. of Propeller *1* Pitch *1* Surface (each *1* S. ft.) *1*
 Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth *1*

Crank Shafts Forged by *Yife Yangeloy.* Material *IP*
 Pins " " " "
 Webs " " " "
 Thrust Shafts " " " "
 Intermed. " " " "
 Propeller " " " "
 Crank " Finished by " "
 Thrust " " " "
 Intermed. " " " "
 Propeller " " " "

STAMP MARKS ON SHAFTS.

*Crank, Thrust
 & Tail Shafts: —*

*B.C.
 N°660
 15-4-29.
 R.S.*

SKETCH OF PROPELLER SHAFT.

Handwritten notes and diagrams on the right page, including a large 'R' logo and '© 2021 Lloyd's Register Foundation' text.

BOILERS.

Works No. *G. 200.*

No. of Boilers *1* Type *Cylindrical multitubular*

Single or Double-ended *single.*

No. of Furnaces in each *3*

Type of Furnaces *Slighton*

Date when Plan approved *20-11-28*

Approved Working Pressure *200 lbs.*

Hydraulic Test Pressure *350 "*

Date of Hydraulic Test *25-5-29.*

" when Safety Valves set *11-6-29*

Pressure at which Valves were set *206 lbs.*

Date of Accumulation Test *4-6-29*

Maximum Pressure under Accumulation Test *206 lbs.*

System of Draught *C.A.*

Can Boilers be worked separately? *yes*

Makers of Plates *James Dunlop Co.*

" Stay Bars *D. Lochille & Sonhd.*

" Rivets *Blair Co*

" Furnaces *Beardmore Co. @*

Greatest Internal Diam. of Boilers *14'-0"*

" " Length " *11'-6"*

Square Feet of Heating Surface each Boiler *2292 sq*

" " Grate " " *55.7 sq*

No. of Safety Valves each Boiler *2* Rule Diam. Actual *2 1/2"*

Are the Safety Valves fitted with Easing Gear? *yes.*

No. of Pressure Gauges, each Boiler *2* No. of Water Gauges *1*

" Test Cocks " *3* " Salinometer Cocks *1*

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

Are the Water Gauge Fittings 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 Stanches of Shell Fitting in each Boiler

" " Plates in each Stanche

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 Triple Riveted?

No. of Rivets in a Pitch

Diam. of Rivet Holes

No. of Rows of Rivets in Centre (Transversal Seams)

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes

No. of Rows of Rivets in Front End (Longitudinal Seams)

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes

No. of Rows of Rivets in Back End (Longitudinal Seams)

Are these Seams Hand or Machine Riveted?

Diam. of Rivet Holes

Size of Rivets in Pitch

Dimensions of Connecting Rings



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Handwritten notes and signatures, including a large 'X' and a signature that appears to be 'J. Lochille & Sonhd.'

Thickness of End Plates in Steam Space Approved

" " " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " " Approved Threads per Inch

" " " " " in Boilers

Material of " " "

How are Stays Secured?

Diar. and Thickness of Loose Washers on End Plates

" " Riveted " "

Width " " Doubling Strips "

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?

Thickness of Back End Plates at Bottom Approved

" " " " " in Boilers

Pitch of Stays at Wide Spaces between Fireboxes

Thickness of Doublings in " "

Thickness of Front End Plates at Bottom Approved

" " " " " in Boilers

No. of Longitudinal Stays in Spaces between Furnaces

Samuel KOSTI



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Diar. 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 Diar. of Tubes

Material "

same as KOS I

Thickness of Furnace Plates Approved

" " " in Boilers

Smallest outside Diar. 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

Diar. of Screwed Stays & approved Threads per Inch

" " in Boilers

Material

Thickness of Combustion Chamber Walls Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Heads

Diar. of Stays Approved Threads per Inch

" " in Boilers

Material

Thickness of Combustion Chamber Heads Approved

" " in Boilers

Pitch of Screwed Stays in C.O. Heads

Diar. of Stays Approved Threads per Inch

" " in Boilers

Material

Are all screw stays fitted with Nuts in 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 Girders in each

% of Wall in each

Size of Lower Rivets



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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.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

Size of Lower Manholes

Same as "KOS"

VERTICAL DONKEY BOILERS

Type of Boilers

Grates In. Diam.

Height of Boiler Crown above Fire Grate

Are Boiler Crowns Flat or Dished?

Internal Radius of Dished Ends

Description of Seams in Boiler Crowns

Diam. of Rivet Holes

Width of Overlap

Height of Firebox Crown above Fire Grate

Are Firebox Crowns Flat or Dished?

Internal Radius of Dished Crowns

Thickness of Plates

No. of Crown Stays

Material

External Diam. of Firebox at Top

Internal Diam. of Firebox at Top

Thickness

No. of Water Tubes

Material of Water Tubes

Size of Manhole in Shell

Dimensions of Compressing Ring

Heating Surface, each Boiler

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



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MAIN STEAM PIPES.

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

1
copper.
S.D.
4 1/2"
H.W.L.
cracked.
6-6-29
400 lbs

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

SUPERHEATERS

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure

LIST OF LABORATORIES

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

FEED WATER FILTERS

No. of Lengths

Material

Brazed, Welded or Seamless

Internal Diam.

Thickness

How are Flanges secured?

Date of Hydraulic Test

Test Pressure



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REFRIGERATORS.

No. of Machines Capacity of each No. of Cylinders, each Machine

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

Grain Boilers

Traps

Water Traps

CONDENSERS OF VARIOUS TYPES

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.
No. of Trials				
Place of Exposure				
Current Atmospheric Pressure				
State of Weather				
Direction of Wind				
No. of Apparatus used				
Particulars of these Apparatus				

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

R. Robinson

Capacity 110 Amps

Currents Alternating or Continuous

Single or Double Wire System

Position of Dynamo

Main Switch Board

% of Circuits to which switches are provided on main switch board

Particulars of these Circuits

Particulars of these Circuits	Number of Lights	Number of Motors	Number of Pumps	Number of Fans	Number of Hoists	Number of Other Appliances

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

Approved

11-6-29

Chris.

Yes.

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?

What does the Resistance amount to? Ohms.

Is the Installation supplied with a Voltmeter?

" " " an Ampere Meter

Date of Trial of complete Installation 11-6-29. Duration of Trial

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

Approved by the Commission

11-6-29

Chris.



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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? *yfs.*

If not, give details of the points of difference, and state when these were sanctioned by the Chief

Surveyor.

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

Is the Workmanship throughout thoroughly satisfactory? *yfs.*

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

as ascertained by ^{me} from personal examination

"
K O S. VI
"

J. D. Stephenson

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

Fees—

MAIN BOILERS.		£	s.	d.
H.S.	<i>2292</i> Sq. ft.	:	:	:
G.S.	<i>55.4</i> "	:	:	:
DONKEY BOILERS.				
H.S.	Sq. ft.	:	:	:
G.S.	"	:	:	:
		£	:	:
ENGINES.				
L.P.O.	<i>16.6</i> 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.



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