

No. 2274

Clary Foran

THE BRITISH CORPORATION FOR THE SURVEY
AND

REGISTRY OF SHIPPING.

~~NN FERNIDALE~~

Report No. 2250 No. in Register Book 3634

~~EX~~ Clary Foran

S.S. "Coteaudoc"

Makers of Engines Barclay, Curle & Co., Ltd.

Works No. 630

Makers of Main Boilers same

Works No. 630

Makers of Donkey Boiler —

Works No. —

MACHINERY.

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No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office 13th April 1929

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ^{Single} ~~Steam~~ ~~Engine~~ ~~Boiler~~ ~~Steamer~~
"Cateador"

Official No. Port of Registry Newcastle,
Registered Owners Pakensone Steamships Limited,

Engines Built by Barclay, Curle & Co., Ltd.
at Scotstoun Glasgow,

Main Boilers Built by Same firm,
at Kelvinhaugh St., Glasgow.

Donkey " "

at

Date of Completion 5/4/29.

First Visit 8/1/29 Last Visit 5/4/29 Total Visits 23

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SHAFTING.

Are the Crank Shafts Built or Solid? *Built*

No. of Lengths in each *One* Angle of Cranks *120°*

Diar. by Rule *8.25"* Actual *8³/₈"* In Way of Webs *8⁷/₈"*

" of Crank Pins *8³/₈"* Length between Webs *8¹/₄"*

Greatest Width of Crank Webs *1'-4¹/₄"* Thickness *5¹/₄"*

Least " " *1'-0"* " " " " " "

Diar. of Keys in Crank Webs *1³/₄"* Length *3³/₄"*

" Dowels in Crank Pins *—* Length " " " " " " Screws or Plain " " " " " "

No. of Bolts each Coupling *6* Diar. at Mid Length *2"* Diar. of Pitch Circle *1'-0³/₈"*

Greatest Distance from Edge of Main Bearing to Crank Web *3¹/₁₆"*

Type of Thrust Blocks

No. " Rings

*Horse shoe**4*

Diar. of Thrust Shafts at bottom of Collars

8³/₈"

No. of Collars

4

" " Forward Coupling

"

At Aft Coupling

8³/₈"

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

8.88" Actual*9"*

At Couplings

9¹/₈"

Are Propeller Shafts fitted with Continuous Brass Liners?

Yes.

Diar. over Liners

10³/₁₆"

Length of After Bearings

3'-0"

Of what Material are the After Bearings composed?

Liq. vit. stups.

Are Means provided for lubricating the After Bearings with Oil?

No.

" " to prevent Sea Water entering the Stern Tubes?

"

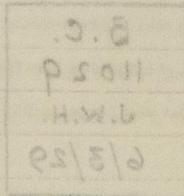
If so, what Type is adopted?

SKETCH OF CRANK SHAFT.

See Report on
ss. "Sarrnia doc."



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

Pillars

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

Pipes

Are these Pipes connected to Boilers by Cocks or Valves?

Cocks

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

Valves on ends.

No. of Strakes of Shell Plating in each Boiler

One

Plates in each Strake

"

Thickness of Shell Plates Approved

$\frac{13}{16}$ "

in Boilers

Are the Rivets Iron or Steel?

Are the Longitudinal Seams Butt or Lap Joints?

Butt
Double

Are the Butt Straps Single or Double?

Yes.

Are the Double Butt Straps of equal width?

$\frac{7}{8}$ "

Thickness of outside Butt Straps

$\frac{3}{4}$ "

inside

Are Longitudinal Seams Hand or Machine Riveted?

Machine

Are they Single, Double, or Treble Riveted?

Treble

No. of Rivets in a Pitch

5

Diar. of Rivet Holes Pitch

$\frac{7}{8}$ "

$\frac{6}{8}$ "

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?

Hand

Diar. of Rivet Holes Pitch

1"

3.49"

No. of Rows of Rivets in Back End Circumferential Seams

2

Are these Seams Hand or Machine Riveted?

Machine

Diar. of Rivet Holes Pitch

1"

3.49"

Size of Manholes in Shell

Dimensions of Compensating Rings

Thickness of End Plates in Steam Space Approved

in Boilers

Pitch of Steam Space Straps

Thickness of End Plates in Steam Space Approved

in Boilers

Material of

How are Straps Secured?

Diar. and Thickness of Loose Washers on End Plates

Rivets

Width of Doubling Straps

Thickness of Middle Back End Plates Approved

in Boilers

Thickness of Doubling in Wide Spaces between Linestones

Pitch of Straps at

Pitch of Straps Approved

in Boilers

Material

Are Straps Riveted with Knots outside?

Thickness of Back End Plates at Bottom Approved

in Boilers

Pitch of Straps at Wide Spaces between Linestones

Thickness of Doubling in



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Thickness of End Plates in Steam Space Approved

1 1/32"

Pillars
Pipes
Cocks

" " " " in Boilers

Pitch of Steam Space Stays

Diar. " " " Approved 2 3/4" Threads per Inch 6

6 on ends

" " " " in Boilers

Material of " " "

How are Stays Secured?

Diar. and Thickness of Loose Washers on End Plates

" " Riveted " "

Width " " Doubling Strips

Butt
Double

Thickness of Middle Back End Plates Approved

1 1/32"

" " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

Pitch of Stays at " " " "

Diar. of Stays Approved 1 3/8" Threads per Inch 9

9

" " " " 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 " "

Hand
3.49"

Thickness of Front End Plates at Bottom Approved

" " " " in Boilers

Machine
3.49"

No. of Longitudinal Stays in Spaces between Furnaces

For all other particulars,
see Report on
S.S. "Saruiadoc".



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Diar. of Stays Approved $2\frac{1}{2}$ " Threads per Inch 6
 " " in Boilers "
 Material "
 Thickness of Front Tube Plates Approved $1\frac{1}{32}$ "
 " " " " in Boilers "
 Pitch of Stay Tubes at Spaces between Stacks of Tubes
 Thickness of Doublings in " " "
 " Stay Tubes at " " " $5/16$ "
 Are Stay Tubes fitted with Nuts at Front End
 Thickness of Back Tube Plates Approved $7/8$ "
 " " " in Boilers "
 Pitch of Stay Tubes in Back Tube Plates
 " Plain "
 Thickness of Stay Tubes $5/16$ " and $3/8$ "
 " Plain " 9 w.g.
 External Diar. of Tubes $2\frac{1}{2}$ "
 Material " Iron.
 Thickness of Furnace Plates Approved $7/16$ "
 " " " 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

for other particulars, see
 Report on
 S.S. "Sarniador".



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Diar. of Screwed Stays Approved *2 1/2"* Threads per Inch *6*

" " " in Boilers

Material " "

Thickness of Combustion Chamber Sides Approved

11/16"

" " " " in Boilers

Pitch of Screwed Stays in C.O. Sides

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

Thickness of Combustion Chamber Backs Approved

11/16"

" " " " in Boilers

Pitch of Screwed Stays in C.O. Backs

Diar. " " Approved Threads per Inch

" " " in Boilers

Material " "

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

Thickness of Combustion Chamber Bottoms

11/16"

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.

*For further particulars,
see Report on
S.S. "Sarniadoc".*



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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

No. of Stays on each Flue Tube

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



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MAIN STEAM PIPES.

No. of Lengths	2		
Material	Steel		
Brazed, Welded or Seamless	welded		
Internal Diam.	3 1/2"		
Thickness	1/4"		
How are Flanges secured?	Screwed & expanded.		
Date of Hydraulic Test	29/3/29		
Test Pressure	540 lb/sq"		
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			

LIST OF PUMPS, PUMPS
EVAPORATORS

Ballast, vert. dup. 9 x 11 x 10"			
Gen. Service " 5 x 3 1/2 x 6"			
Sanitary, horiz. " 4 1/2 x 2 1/2 x 4"			
Feed Water Heaters			
all			
9/5/1/29			

FEED WATER FILTERS

High pressure steam			
Heavy Water			
180 M.P.			
420 M.P.			
5/1/29			



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EVAPORATORS.

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

FEED WATER HEATERS.

No.	One	Type	Exhaust steam	
Makers	Hocking & Co. Ltd.			@
Working Pressure	25 lb/□	Test Pressure	Coils 450 lb/□ shell 50 "	Date of Test 4/1/29

FEED WATER FILTERS.

No.	One	Type	High pres. steam.	Size
Makers	Henry Watson Ltd.			@
Working Pressure	180 lb/□	Test Pressure	450 lb/□	Date of Test 28/1/29

LIST OF DONKEY PUMPS.

	Ballast, vert. dup.	9" x 11" x 10"
	Gen. Service, " "	5" x 3½" x 6"
	Sanitary, horiz.	4½" x 2¾" x 4"
	Fresh water, " "	" " " "
	all by Dawson & Downie Ltd.	



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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	6	" Feed Pump Valves	2	" Bilge Pump Valves	1 set
" H.P. Piston Rings		" I.P. Piston Rings		" L.P. Piston Rings	
" " Springs		" " Springs		" " Springs	
" Safety Valve "	1	" Fire Bars	1/2 set	" Feed Check Valves	1
" Piston Rods		" Connecting Rods		" Valve Spindles	
" Air Pump Rods		" Air Pump Buckets		" Air Pump Valves	3
" Cir. "		" Cir. "		" Cir. "	1 set.
" Crank Shafts		" Crank Pin Bushes		" Crosshead Bushes	
" Propeller Shafts		" Propellers		" Propeller Blades	2
" Boiler Tubes	3	" Condenser Tubes	3	" Condenser Ferrules	20

OTHER ARTICLES OF SPARE GEAR:—

See ss. "Sarniadoo".

REFRIGERATORS.



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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 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. "Coteandoc"

as ascertained by ^{me} from personal examination

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

Fees—

MAIN BOILERS.

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

DONKEY BOILERS.

H.S.	Sq. ft.	:	:	
G.S.	"	:	:	
		£	:	:

ENGINES.

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

It is submitted that this Report be approved,

J. Green King
 Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the *1st May 1929.*

Fees advised

Fees paid



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