

No. 2247

TRANSFERRED TO:  
L. R. SYSTEM

THE BRITISH CORPORATION FOR THE SURVEY  
AND  
REGISTRY OF SHIPPING.

Report No. 2289 No. in Register Book 3674

*Ala Kaze Maru*

"  
S.S. NEW WESTMINSTER CITY

Makers of Engines

*Central Marine Engine Works*

Works No.

*1018*

Makers of Main Boilers

*Central Marine Engine Works*

Works No.

*1018*

Makers of Donkey Boiler

Works No.

MACHINERY.



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012003-012010-0044



No.

THE BRITISH CORPORATION FOR THE SURVEY  
AND  
REGISTRY OF SHIPPING.

Report No. .... No. in Register Book .....

Received at Head Office .....

6<sup>th</sup> January 1930

Surveyor's Report on the New Engines, Boilers, and Auxiliary  
Machinery of the <sup>Single Triple</sup> ~~Twin Quadruple~~ Screw Steamer  
"New Westminster City"

Official No. ....

Port of Registry .....

Bideford

Registered Owners .....

C. W. R. Smith Sons Ltd.

Engines Built by .....

Central Marine Engine Works  
at West Hartlepool

Main Boilers Built by .....

Central Marine Engine Works  
at West Hartlepool

Donkey " " .....

at .....

Date of Completion .....

7-29

First Visit .....

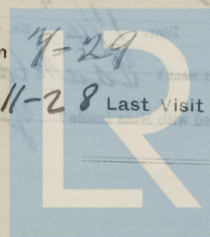
28-11-28

Last Visit .....

6-7-29

Total Visits .....

50



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## RECIPROCATING ENGINES.

Works No. 1018

No. of Sets 1

Description

Triple Expansion  
S.C. Berks.

No. of Cylinders each Engine

3

No. of Cranks

3

Diars. of Cylinders

25"-42"-70"

Stroke

48"

Cubic feet in each L.P. Cylinder

106.8

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

Yes.

" " " each Receiver?

Yes.

Type of H.P. Valves,

Piston

Double Bevel Poppet

1st I.P. "

2nd I.P.,

L.P. "

" Valve Gear

" Condenser

slids.  
Stephenson link  
Surface Rejuvenation

Cooling Surface

2590  
3000

sq. ft.

Diameter of Piston Rods (plain part)

2"

Screw part (bottom of thread)

4 25/32"

Material

Iron

Diar. of Connecting Rods (smallest part)

1 1/4"

Material

Iron

" Crosshead Gudgeons

1 1/4"

Length of Bearing

1 1/4"

Material

Iron

No. of Crosshead Bolts (each)

4

Diar. over Thrd.

2 1/8"

Thrds. per inch

6

Material

Stub

" Crank Pin " "

2

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

" "

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" "

" "

" Main Bearings

6

Lengths

5 at 14 3/4"

1 at 13 1/4"

" "

" "

" "

" "

" "

" "

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" "

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" "

" "

" "

" Bolts in each

2

Diar. over Thread

2 1/8"

Threads per inch

6

Material

Stub

" Holding Down Bolts, each Engine

102

Diar.

1 1/4"

No. of Metal Chocks

102

" "

" "

" "

" "

" "

" "

" "

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" "

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" "

" "

" "

" "

Are the Engines bolted to the Tank Top or to a Built Seat?

Tank top

Are the Bolts tapped through the Tank Top and fitted with Nuts Inside?

Yes.

If not, how are they fitted?

Connecting Rods, Forged by

Chubb &amp; Co.

Piston

"

"

"

Crossheads,

Connecting Rods, Finished by

Piston

"

"

Crossheads,

Date of Harbour Trial

28-6-29.

" Trial Trip

6-7-29.

Trials run at

From Harbourside to Lyne.

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

Yes.

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

2338 on 2 hrs.

Revs. per min.

74.

Pressure in 1st I.P. Receiver,

70

lbs., 2nd I.P.,

lbs., L.P.,

11

lbs., Vacuum, 26

Speed on Trial

11.9 knots.

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

data:—

Builders' estimated L.H.P.

Revs. per min.

Estimated Speed

High tensile 36-40 tons



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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			

## TURBO-ELECTRIC INSTALLATION OF 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	} Width
" 1st " Wheel	
Estimated Pressure per lineal inch	
Diam. of 2nd Reduction Pinion	} Width
" 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	Propeller Revs. per min.
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

} Width

Pitch of Teeth

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion

" 2nd " Wheel

} Width

Pitch of Teeth

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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No. of Blades each Propeller *4* Fitted or Solid? *solid.*  
 Material of Blades *brass* Boss *brass*  
 Diam. of Propellers *18'-0"* Pitch *17'-6"* Surface (each *104* S. ft.)  
 Coefficient of Displacement of Vessel at  $\frac{1}{2}$  Moulded Depth

Crank Shafts Forged by

*Nickel Armstrong.*

Material

*SS*

Pins

Webs

Thrust Shafts

Intermed.,

Propeller

Crank " Finished by

*Chick.*

Thrust

Intermed.,

Propeller

## STAMP MARKS ON SHAFTS.

Crank Shaft:-

B.C.  
 No 455  
 26-3-29  
 J.D.S.

Thrust Shaft:-

B.C.  
 No 456  
 26-3-29  
 J.D.S.

4. Tunnel Shaft:-

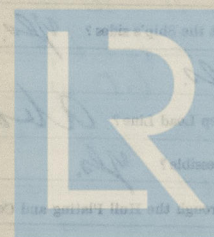
B.C.  
 No 457  
 25-4-29  
 J.D.S.

1. Tail Shaft:-

B.C.  
 No 458  
 29-4-29  
 J.D.S.

## SKETCH OF PROPELLER SHAFT.

No. of Air Pumps  
 No. of Circulating Pumps  
 Type of  
 Diam. of  
 Has each Pump a High Section with Non-return Valve?  
 What other Pumps can circulate through Condenser?  
 No. of Feed Pumps on Main Engines  
 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  
 What other Pumps can feed the Boilers?  
 No. of Bile Pumps on Main Engines  
 Can one Pump be overhauled while the others are at work?  
 No. of Independent Bile Pumps  
 What other Pumps can draw from the Bile?  
 Are all Bile Sections fitted with Bile?  
 Are the Valves, etc., so arranged as to prevent unintentional connection between sea and Bile?  
 Are all Sea Connections made with Valves?  
 Are they placed so as to be easily accessible?  
 Are the Discharge Pipes placed above or below the Deck and thus easily accessible?  
 Are the Discharge Pipes so placed as to be easily accessible?  
 Are the Discharge Pipes so placed as to be easily accessible?  
 Are the Discharge Pipes so placed as to be easily accessible?



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## PUMPS, ETC.

No. of Air Pumps 1 Diar. 24" Stroke 28"

Worked by Main or Independent Engines? Main engines.

No. of Circulating Pumps 1 Diar. Stroke

Type of " Centrifugal

Diar. of " Suction from Sea 12"

Has each Pump a Bilge Suction with Non-return Valve? yes. Diar. 8"

What other Pumps can circulate through Condenser? Ballast pump.

No. of Feed Pumps on Main Engine 2 Diar. 4" Stroke 28"

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. 4" Stroke 21"

What other Pumps can feed the Boilers? General Services, Harbour Feed pumps.

No. of Bilge Pumps on Main Engine 2 Diar. 4" Stroke 28"

Can one Pump be overhauled while the others are at work? yes.

No. of Independent Bilge Pumps one

What other Pumps can draw from the Bilges? Ballast pump.

Are all Bilge Suctions fitted with Roses? yes.

Are the Valves, etc., 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.

## AUXILIARY MAIN BOILER

Works No.

No. of Boilers

Single or Double-ended

No. of Furnaces in each

Type of Furnaces

Date when Plan approved

Approved 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 Boiler be worked separately?

Material of Plates

Day Plate

Rivet

Furnace

Gross Internal Diam. of Boiler

Length

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## BOILERS.

Works No. 1018  
 No. of Boilers 2 Type *Cylindrical multitubular*  
 Single or Double-ended *single*  
 No. of Furnaces in each 3  
 Type of Furnaces *Highlow*  
 Date when Plan approved *22-12-28*  
 Approved Working Pressure *200 lbs.*  
 Hydraulic Test Pressure *350*  
 Date of Hydraulic Test *5-4-29*  
 „ when Safety Valves set *28-7-29*  
 Pressure at which Valves were set *206 lbs.*  
 Date of Accumulation Test *28-7-29*  
 Maximum Pressure under Accumulation Test *206 lbs.*  
 System of Draught *C.A.*  
 Can Boilers be worked separately? *yes*  
 Makers of Plates *Scalville Sons Ltd.*  
 „ Stay Bars *R. B. 1 & Co Ltd.*  
 „ Rivets *John Thompson*  
 „ Furnaces *John Thompson*  
 Greatest Internal Diam. of Boilers *16'-0"*  
 „ „ Length „ *11'-10 1/4"*  
 Square Feet of Heating Surface each Boiler *2979 sq ft*  
 „ „ Grate „ „ *60 sq ft*  
 No. of Safety Valves each Boiler 2 Rule Diam. *2 9/16"* Actual *2 3/4"*  
 Are the Safety Valves fitted with Easing Gear? *yes*  
 No. of Pressure Gauges, each Boiler 2 No. of Water Gauges 2  
 „ Test Cocks „ 1 „ „ Salinometer Cocks 1

## AUXILIARY MAIN BOILER.

1018.C  
 1 cylindrical multitubular  
 single  
 2  
 Highlow  
 22-12-28  
 200 lbs.  
 350  
 5-4-29  
 3-8-29  
 206 lbs.  
 3-8-29  
 206 lbs.  
 C.A.

*Scalville Sons Ltd.*

*R. B. 1 & Co Ltd.*  
*John Thompson*

*12'-0"*

*10'-10 3/16"*

*1447 sq ft*

*34.5 sq ft*

2

2

3

2

3

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

*Pillars.  
direct*

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?

*valves.*

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

No. of Strakes of Shell Plating in each Boiler

*± 1*

Plates in each Strake

*2*  
*1 13/32"*

Thickness of Shell Plates Approved

*1 13/32"*

in Boilers

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 1/16"*

inside

*1 3/16"*

Are Longitudinal Seams Hand or Machine Riveted?

*machine.*

Are they Single, Double, or Treble Riveted?

*treble*

No. of Rivets in a Pitch

*5*

Diam. of Rivet Holes

*1 7/16"*

Pitch

*10"*

No. of Rows of Rivets in Centre Circumferential Seams

*3*

Are these Seams Hand or Machine Riveted?

*machine*

Diam. of Rivet Holes

*1 1/2"*

Pitch

*4 7/8"*

No. of Rows of Rivets in Front End Circumferential Seams

*2*

Are these Seams Hand or Machine riveted?

*hand.*

Diam. of Rivet Holes

*1 1/2"*

Pitch

*4 3/4"*

No. of Rows of Rivets in Back End Circumferential Seams

*2*

Are these Seams Hand or Machine Riveted?

*machine.*

Diam. of Rivet Holes

*1 1/2"*

Pitch

*4 3/4"*

Size of Manholes in Shell

*16" x 12"*

Dimensions of Compensating Rings

*3'-1" x 2'-9" x 1 13/32"*

*Pillars.*

*by pipes.*

*cocks.*

*valves.*

*1*

*2*

*1 3/32"*

*1 3/32"*

*1 3/32"*

*steel*

*butt*

*double.*

*yes.*

*1 3/16"*

*1 5/16"*

*machine*

*treble.*

*5*

*1 1/8" at 8 1/8"*

*1 1/8" at 8 1/8"*

*1 1/8" at 8 1/8"*

*2*

*hand.*

*1 3/16" at 3 7/8"*

*2*

*machine.*

*1 3/16" at 3 7/8"*

*16" x 12"*

*3'-1" x 2'-9" x 1 13/32"*



Thickness of End Plates in Steam Space Approved

 $1\frac{1}{4}$ "

" " " " in Boilers

 $1\frac{1}{4}$ "

Pitch of Steam Space Stays

 $22" \times 19"$ 

Diam. " " " " Approved

 $3\frac{1}{4}"$ 

Threads per Inch

6

" " " " in Boilers

 $3\frac{1}{4}"$ 

6

Material of " " "

steel.

How are Stays Secured?

Double-nuts washers.

Diam. and Thickness of Loose Washers on End Plates

 $11\frac{1}{2}" \times \frac{7}{8}"$ 

" " Riveted " "

-

Width " " Doubling Strips "

-

Thickness of Middle Back End Plates Approved

 $\frac{7}{8}"$ 

" " " " in Boilers

 $\frac{7}{8}"$ 

Thickness of Doublings in Wide Spaces between Fireboxes

-

Pitch of Stays at

 $13\frac{1}{2}" \times 9"$ 

Diam. of Stays Approved

 $1\frac{3}{8}"$ 

Threads per Inch

9

" " in Boilers

 $1\frac{3}{8}"$ 

"

9

Material "

steel.

Are Stays fitted with Nuts outside?

no

Thickness of Back End Plates at Bottom Approved

 $\frac{7}{8}"$ 

" " " " in Boilers

 $\frac{7}{8}"$ 

Pitch of Stays at Wide Spaces between Fireboxes

 $13\frac{1}{2}" \times 9"$ 

Thickness of Doublings in " "

-

Thickness of Front End Plates at Bottom Approved

 $\frac{7}{8}"$ 

" " " " in Boilers

 $\frac{7}{8}"$ 

No. of Longitudinal Stays in Spaces between Furnaces

3

 $1\frac{1}{32}"$  $1\frac{1}{32}"$  $16" \times 15"$  $2\frac{5}{8}"$ 

6

 $2\frac{5}{8}"$ 

6

steel.

double-nuts.

-

-

-

 $\frac{7}{8}"$  $\frac{7}{8}"$  $13\frac{1}{2}" \times 9"$  $2"$ 

9

 $2"$ 

9

steel.

no

 $\frac{7}{8}"$  $\frac{7}{8}"$  $9\frac{1}{4}" \times 1\frac{1}{2}"$ 

1" thick 18" dia.

 $15\frac{1}{16}"$  $15\frac{1}{16}"$ 

1



Diar. of Stays Approved  $2\frac{1}{2} + 2\frac{1}{4}$  Threads per Inch 6  
 " " in Boilers  $2\frac{1}{2} + 2\frac{1}{4}$  6

Material " steel

Thickness of Front Tube Plates Approved  $\frac{7}{8}$ "

" " " " in Boilers  $\frac{7}{8}$ "

Pitch of Stay Tubes at Spaces between Stacks of Tubes  $13\frac{1}{2} \times 7\frac{1}{4}$ "

Thickness of Doublings in " " "

" Stay Tubes at " " "

Are Stay Tubes fitted with Nuts at Front End? ylo.

Thickness of Back Tube Plates Approved  $1\frac{3}{16}$ "

" " " in Boilers  $1\frac{3}{16}$ "

Pitch of Stay Tubes in Back Tube Plates  $7\frac{1}{2} \times 10\frac{7}{8}$ "

" Plain "  $3\frac{3}{4} \times 3\frac{5}{8}$ "

Thickness of Stay Tubes  $\frac{1}{4} \times \frac{3}{8}$ "

" Plain " 9 w/

External Diar. of Tubes  $2\frac{5}{8}$ "

Material " iron.

Thickness of Furnace Plates Approved  $2\frac{3}{32}$ "

" " " in Boilers  $2\frac{3}{32}$ "

Smallest outside Diar. of Furnaces  $3' - 12\frac{1}{16}$ "

Length between Tube Plates  $7' - 8$ "

Width of Combustion Chambers (Front to Back)  $3' - 2$ "

Thickness of " " Tops Approved  $\frac{1}{16}$ "

" " " " in Boilers  $\frac{1}{16}$ "

Pitch of Screwed Stays in C.C. Tops  $9 \times 9$ "

$2\frac{5}{8}$ " Threads per Inch 6  
 $2\frac{5}{8}$ " 6

steel

$1\frac{5}{16}$ "

$1\frac{5}{16}$ "

$14\frac{1}{2} \times 8\frac{3}{4}$ "

$\frac{1}{4}$ "

ylo.

$2\frac{7}{32}$ "

$2\frac{7}{32}$ "

$8\frac{3}{4} \times 9$ "

$4\frac{3}{8} \times 4\frac{1}{2}$ "

$\frac{3}{16} \times \frac{1}{4}$ "

8 w/

$3\frac{3}{8}$ "

iron.

$5\frac{7}{8}$ "

$5\frac{7}{8}$ "

$3' - 5\frac{1}{2}$ "

$7' - 2$ "

$2' - 8$ "

$2\frac{3}{32}$ "

$2\frac{3}{32}$ "

$10\frac{1}{4} \times 8\frac{3}{8}$ "



Diar. of Screwed Stays Approved

 $1\frac{3}{4}$ " Threads per Inch 9  
 $1\frac{3}{4}$ " " 9

" " " in Boilers

Material " "

steel

Thickness of Combustion Chamber Sides Approved

 $\frac{1}{16}$ "  
 $\frac{1}{16}$ "

" " " in Boilers

Pitch of Screwed Stays in C.O. Sides

 $9" \times 9"$ 

Diar. " " Approved

 $1\frac{3}{4}$ " Threads per Inch 9  
 $1\frac{3}{4}$ " " 9

" " " in Boilers

Material " "

steel

Thickness of Combustion Chamber Backs Approved

 $\frac{1}{16}$ "  
 $\frac{1}{16}$ "

" " " in Boilers

Pitch of Screwed Stays in C.O. Backs

 $9" \times 9"$ 

Diar. " " Approved

 $1\frac{7}{8}$ " Threads per Inch 9  
 $1\frac{7}{8}$ " " 9

" " " in Boilers

Material " "

steel

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

yes  
 $\frac{7}{8}$ "

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

5

" " " Centre "

2

Depth and Thickness of Girders

 $9\frac{1}{2}" \times 1\frac{3}{4}"$ 

Material of Girders

steel

No. of Stays in each

3

No. of Tubes, each Boiler

488

Size of Lower Manholes

 $16" \times 12"$ 
 $1\frac{3}{4}$ " at 9  
 $1\frac{3}{4}$ " " 9

steel

 $2\frac{3}{32}$ "  
 $2\frac{3}{32}$ "

 $8\frac{1}{2}" \times 10\frac{1}{4}"$ 
 $1\frac{3}{4}"$  9  
 $1\frac{3}{4}"$  9

steel

 $2\frac{3}{32}$ "  
 $2\frac{3}{32}$ "

 $9\frac{3}{4}" \times 9\frac{1}{4}"$ 
 $2" \times 1\frac{3}{4}"$  9  
 $2" \times 1\frac{3}{4}"$  9

steel

yes

 $2\frac{3}{32}"$ 

5

 $7\frac{5}{8}" \times 1\frac{1}{2}"$ 

steel

2

178

 $16" \times 12"$



## 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

*Schmidt smoke tube*

Where situated?

*Main Boiler smoke tubes*

Which Boilers are connected to Superheaters?

*Port & Starboard main*

Can Superheaters be shut off while Boilers are working?

*yes*

No. of Safety Valves on each Superheater

*1 2" DIA Diar.*

Are " " fitted with Easing Gear?

*yes.*

Date of Hydraulic Test

*7/7/36*

Test Pressure

*400 lbs.*

Date when Safety Valves set

*14/7/36*

Pressure on Valves

*203 lbs*

## MAIN STEAM PIPES.

No. of Pipes	Material	Length, Weight or Remarks	Internal Diar.	Thickness	How are Joints secured?	Date of Hydraulic Test	Test Pressure
1	Steel	14' 1/2"	1 1/2"	1/16"	Welded	5-2-35	200 lbs.
2	Steel	14' 1/2"	1 1/2"	1/16"	Welded	5-2-35	200 lbs.
3	Steel	14' 1/2"	1 1/2"	1/16"	Welded	5-2-35	200 lbs.
4	Steel	14' 1/2"	1 1/2"	1/16"	Welded	5-2-35	200 lbs.



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## MAIN STEAM PIPES.

No. of Lengths	2	2	2	1
Material	stee.	stee.	stee.	
Brazed, Welded or Seamless	welded.	welded.	welded.	
Internal Diam.	5 3/8"	5 3/8"	4 1/2"	4 1/2"
Thickness	5/16"	5/16"	1/4"	1/4"
How are Flanges secured?	Screwed.	Screwed.	Screwed.	
Date of Hydraulic Test	22-5-29.	3-6-29	5-6-29	6-6-29
Test Pressure	600 lbs.	600 lbs.	600 lbs.	

No. of Lengths	8.	8.	6	2
Material	Steel	Steel	Steel	Steel
Brazed, Welded or Seamless	SD	SD	SD	SD.
Internal Diam.	3 7/8"	3 7/8"	5 1/4"	4 3/8"
Thickness	5/16	5/16	3/8	5/36.
How are Flanges secured?	Sc + Exp.	Sc + Exp.	Sc + Exp.	Sc + Exp.
Date of Hydraulic Test	12/6/36	7/7/36	7/7/36	7/7/36.
Test Pressure	600 lbs.		atto.	

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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## EVAPORATORS.

No. 1 Type *Clu.kw.* 25 Tons per Day  
 Makers *Clu.kw.*  
 Working Pressure 15 *lb.* Test Pressure 50 *lb.* Date of Test 25-2-29.  
 Date of Test of Safety Valves under Steam ~~25-2-29~~ 28-7-29.

## FEED WATER HEATERS.

No. 1 Type *D.C.* @  
 Makers *Clu.kw.*  
 Working Pressure Test Pressure 50 *lb.* Date of Test 7-2-29.

## FEED WATER FILTERS.

No. 1 Type *Drain Running Tank.* Size  
 Makers *Clu.kw.*  
 Working Pressure Test Pressure Date of Test

## LIST OF DONKEY PUMPS

9" x 10 1/2" x 10" Ballast & Bilge pump.  
 7 1/2" x 5" x 6" General Purvie  
 7 1/2" x 5 1/2" x 15" Harbour Feed.  
 6 1/2" x 8" x 18" Oil Transfer.  
 5 1/4" x 3 1/2" x 7" Oil Unit pump in duplicate.



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OTHER ARTICLES OF SPARE GEAR:—







## ELECTRIC LIGHTING.

Installation Fitted by

Clarke Chapman &amp; Co. Ltd.

No. and Description of Dynamos

One compound wound.

Makers of Dynamos

Clarke Chapman &amp; Co. Ltd.

Capacity

100

Ampere, at

110

Volts,

350

Revol. per Min.

Current Alternating or Continuous

Continuous.

Single or Double Wire System

Double.

Position of Dynamos

Starboard side of Engine Room.

Main Switch Board

Near Dynamo.

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.
Engine Room	28	16	6.6	7.036			
Saloon Forward.	63	16	29.2	7.064			
Engine Room aft.	33	16	18.6	7.052			
Wireless	-	-	15	7.036			
Refrigerating Motor	-	-	20	7.052			

Total No. of Lights 124

No. of Motors driving Fans, etc.

No. of Heaters

Current required for Motors and Heaters

20 ambs.



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

*Each light, group of lights provided with switches as required.*

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 Cut-outs constructed of Non-inflammable Material?

Are they placed so as to be always and easily accessible?

Smallest Single Wire used, No. *1.044* S.W.G., Largest No. *1.064* S.W.G.

How are Conductors in Engine and Boiler Spaces protected? *Lead covered steel armoured.*

" " Saloons, State Rooms, &c., " *Lead covered cables.*

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp *Lead covered steel armoured cables.*

(2) " passing through Bunkers or Cargo Spaces

(3) " " Deck Beams or Bulkheads *In galvanized iron deck tubes lead covered.*

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables

is unimpaired? *no joints except mechanical ones.*

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

Duration of Trial

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



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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. NEW WESTMINSTER CITY

as ascertained by *me* from personal examination

*J. D. Stephenson*  
Engineer Surveyor to the British Corporation for the  
Survey and Registry of Shipping.

## Fees—

MAIN BOILERS.		£	s.	d.
H.S.	5958 Sq. ft.	:	:	:
G.S.	120 "	:	:	:
<i>ant</i> DONKEY BOILERS.				
H.S.	1447 Sq. ft.	:	:	:
G.S.	34.5 "	:	:	:
		£	:	:
ENGINES.				
L.P.O.	106.8 Cub. ft.	:	:	:
		£	:	:
Testing, &c. ...		:	:	:
		£	:	:
Expenses ...		:	:	:
Total ...		£	:	:

It is submitted that this Report be approved,

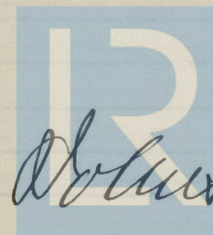
*James Barr*

Chief Surveyor.

Approved by the Committee for the Class of M.B.S.\* on the *23<sup>rd</sup> December 1929*

Fees advised

Fees paid



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Secretary.



## GENERAL CONSTRUCTION

Notes—

MAIN BOILER

H.S. 2928

Sd. It.

G.S. 120

Sd. It.

DOORWAY BOILERS

H.S. 1142

Sd. It.

G.S. 24.8

Sd. It.

ENGINE

L.H.G. 100.8

Cub. Ft.

Sd. It.

Testing &amp; ...

Sd. It.

Expenses

Total

It is submitted that this Report be approved.

Approved by the Committee for the Class of M.E.S. on the

NEW WESTMINSTER CITY

For witness

Done this

*[Signature]*

*[Signature]*



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