

No. 1904

THE BRITISH CORPORATION FOR THE SURVEY  
AND  
REGISTRY OF SHIPPING.

Report No. 1656 No. in Register Book 2915

STARMOUNT,  
"Paljane."  
S.S. ....

Makers of Engines Dunlop Bremner & Co. Ltd.

Works No. 348

Makers of Main Boilers D. Rowan & Co. Ltd.

Works No. B. 314

Makers of Donkey Boiler (none)

Works No. ✓



003429-003433-0047



No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

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Report No. 1656 No. in Register Book 2915

Received at Head Office

June 1923

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

"Pabjune"

Official No.

Port of Registry

Greenock.

Registered Owners

D.H. Mafes, Quar. Eng.  
Montreal, Canada.

Engines Built by

Dunlop Bremner & Co. Ltd

at

Port Glasgow.

Main Boilers Built by

David Rowan & Co. Ltd.

at

Glasgow.

Donkey

(none.)

at

Date of Completion

4/5/23

First Visit

14/12/22

Last Visit

7/5/23

Total Visits

39

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## RECIPROCATING ENGINES.

Works No. 348 No. of Sets 1 Description Triple expansion,  
vertical.

No. of Cylinders each Engine 3 No. of Cranks 3  
Diars. of Cylinders 16", 26½" and 44" Stroke 33"  
Cubic feet in each L.P. Cylinder 29

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

" " " each Receiver? Yes, except H.P.

Type of H.P. Valves, Piston. (solid.)

" 1st I.P. " Andrews & Cameron balanced slide  
" 2nd I.P. " Double-ported slide.

" L.P. " Stephenson's Link.

" Valve Gear Surface.

" Condenser Surface Cooling Surface 880 sq. ft.

Diameter of Piston Rods (plain part) 4¼" Screwed part (bottom of thread) 3.18"

Material " Steel

Diar. of Connecting Rods (smallest part) 4¼" Material Steel

" Crosshead Gudgeons 5½" Length of Bearing 7½" Material "

No. of Crosshead Bolts (each) 2 Diar. over Thrd. 2½" Thrds. per inch 6 Material Steel

" Crank Pin " " " " " " " " " " " "

" Main Bearings 6 Lengths 8¾"

" Bolts in each 2 Diar. over Thread 2" Threads per inch 4½ Material Steel

" Holding Down Bolts, each Engine 78 Diar. 1" No. of Metal Chocks 78

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 Dunlop, Bremner & Co. Ltd.

Piston " " } " " " " " " " " " "

Crossheads, " " } " " " " " " " " " "

Connecting Rods, Finished by " " " " " " " " " "

Piston " " } " " " " " " " " " "

Crossheads, " " } " " " " " " " " " "

Date of Harbour Trial 2/5/23

" Trial Trip 7/5/23

Trials run at Skalmorlie.

Were the Engines tested to full power under Sea-going conditions? No. (light ship.)

If so, what was the L.H.P.? 706 Revols. per min. 113

Pressure in H.P. Receiver, 182 lbs., I.P., 45 lbs., L.P., 3.5 lbs., Vacuum, 25.5 ins.

Speed on Trial 7.37 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. 800 Revols. per min. 90

Estimated Speed 9 knots.

H.P. cyl. tested @ 270 lbs/0" hyd. 19/3/23

M.P. " " " " " " " " " "

L.P. " " " " 20 " " 19/3/23



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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

Revol. 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 Revols. 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 OF INSTALLATION.

No. of Turbo-Generating Sets

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

Pitch of Teeth

Diam. of 2nd Reduction Pinion

Width

Pitch of Teeth

Estimated Pressure per lineal inch

Revol. per min. of Generators at Full Power

Motor

Is Harbour Trial

Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revols. 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

*one*

Angle of Cranks

*120°*Diar. by Rule *8.59"*

Actual

*8 3/4"*

In Way of Webs

*9"*

" of Crank Pins

*9"*

Length between Webs

*9"*

Greatest Width of Crank Webs

*1' 4 3/4"*

Thickness

*5 9/16"*

Least

" "

" "

" "

Dowels

Diar. of Keys in Crank Webs

*1 3/4"*

Length

*4 1/2"*

" Dowels in Crank Pins

Length *4 1/2"*Screwed on Plain *Plain, with 1/2" screwed pins.*

No. of Bolts each Coupling

*6*

Diar. at Mid Length

*2 1/16"*

Diar. of Pitch Circle

*1' 1 1/4"*

Greatest Distance from Edge of Main Bearing to Crank Web

*(crank pin bushes)**1 1/4"**Dickson & Mann, Ltd., Armadale.*

Type of Thrust Blocks

*Horse-shoe.*

No.

*Shoes*  
" Rings*4*

Diar. of Thrust Shafts at bottom of Collars

*8 3/4"*

No. of Collars

*4*

Forward Coupling

*"*

At Aft Coupling

*8 3/4"*Diar. of Intermediate Shafting by Rule *(none)* Actual

✓

No. of Lengths

✓

No. of Bolts, each Coupling

✓

Diar. at Mid Length

✓

Diar. of Pitch Circle

✓

Diar. of Propeller Shafts by Rule

*9.76"* Actual*10 1/8"*

At Couplings

*8 3/4"*

Are Propeller Shafts fitted with Continuous Brass Liners?

*yes.*

Diar. over Liners

*11 3/8"*

Length of After Bearings

*3' 5"*

Of what Material are the After Bearings composed?

*Lignum Vitae.*

Are Means provided for lubricating the After Bearings with Oil?

*no.*

" " "

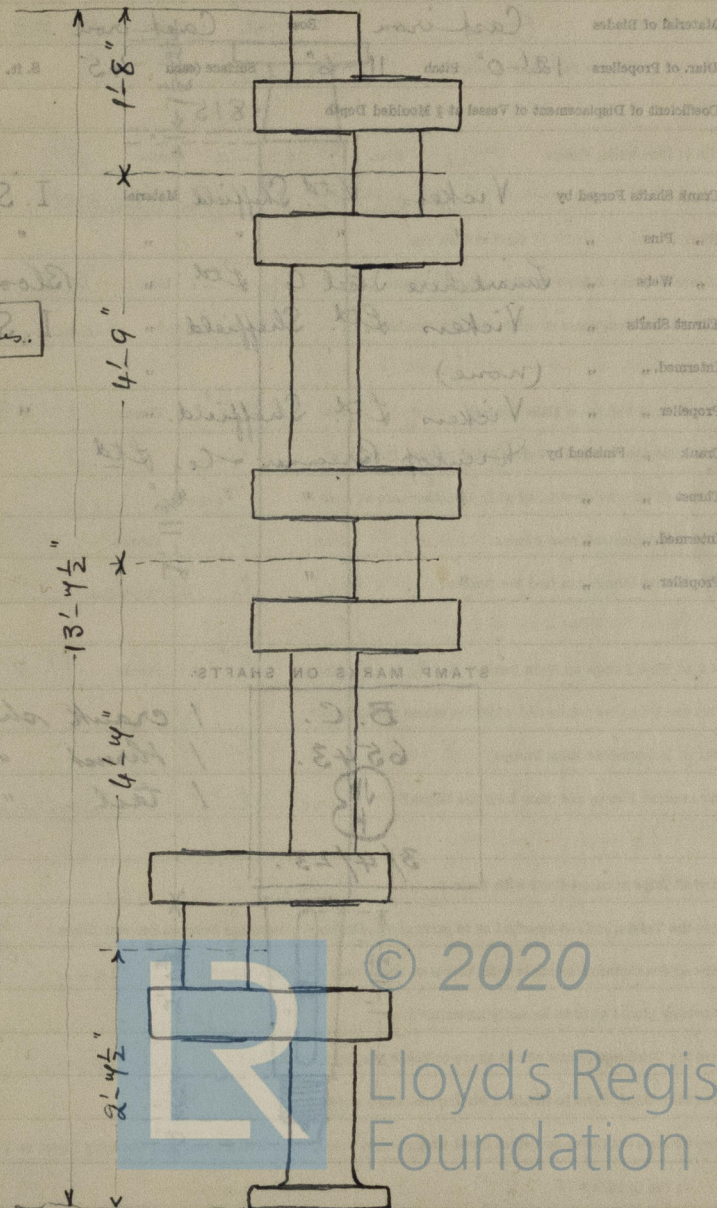
to prevent Sea Water entering the Stern Tubes?

*"*

If so, what Type is adopted?

✓

## SKETCH OF CRANK SHAFT.





No. of Blades each Propeller	42	Fitted or Solid?	Fitted.
Material of Blades	Cast iron.	Boss	Cast iron.
Diar. of Propellers	12'-0"	Pitch	11'-6"
		Surface (each)	45
Coefficient of Displacement of Vessel at $\frac{1}{2}$ Moulded Depth			815
			S. ft.

Crank Shafts Forged by	Vickers	Ltd.	Sheffield.	Material	I. S.
" Pins	"	"	"	"	"
" Webs	"	Leamington Steel Co.	Ltd.	"	Blooms
Thrust Shafts	"	Vickers	Ltd.	Sheffield	" I. S.
Intermed. "	"	(none)	"	"	"
Propeller "	"	Vickers	Ltd.	Sheffield.	"
Crank	"	Finished by	Dunlop	Bremner & Co.	Ltd.
Thrust	"	"	"	"	"
Intermed. "	"	"	"	"	"
Propeller	"	"	"	"	"

STAMP MARKS ON SHAFTS:

B. C.

6543.



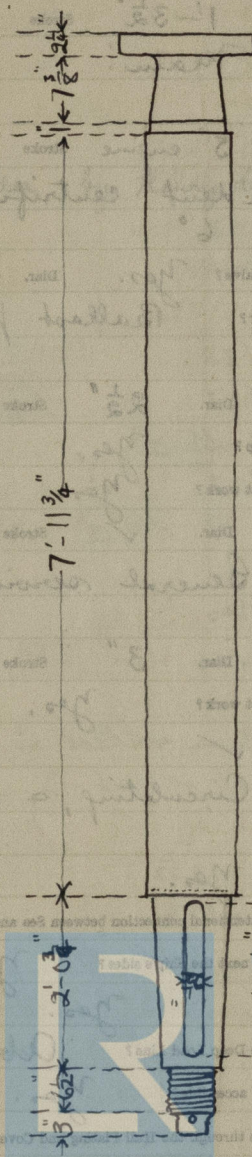
3/4/23.

1 crank shaft

1 Thrust 44

1 tail "

SKETCH OF PROPELLER SHAFT.



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## PUMPS, ETC. OF HULL

No. of Air Pumps *One* Diar. *1'-3½"* Stroke *1'-4½"*  
 Worked by Main or Independent Engines? *Main.*

No. of Circulating Pumps *One* Diar. *5" engine* Stroke *5½"*  
 Type of *" Independent centrifugal, with*  
 Diar. of *" Suction from Sea 6"*  
 Has each Pump a Bilge Suction with Non-return Valve? *Yes.* Diar. *4½"*  
 What other Pumps can circulate through Condenser? *Ballast pump.*

No. of Feed Pumps on Main Engine *2* Diar. *2½"* Stroke *1'-4½"*  
 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 *✓* Diar. *✓* Stroke *✓*  
 What other Pumps can feed the Boilers? *General service.*

No. of Bilge Pumps on Main Engine *2* Diar. *3"* Stroke *1'-4½"*  
 Can one Pump be overhauled while the others are at work? *Yes.*  
 No. of Independent Bilge Pumps *✓*  
 What other Pumps can draw from the Bilges? *Circulating, & Ballast.*

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.*

## BOILERS

*2'-0" impeller, by Henry Watson & Sons, Ltd.*



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## BOILERS.

Works No. **B. 314.**

No. of Boilers **2** Type **Scotch**

Single or Double-ended **Single.**

No. of Furnaces in each **2**

Type of Furnaces **Deighton.**

Date when Plan approved **19/1/23.**

Approved Working Pressure **180 lbs./sq"**

Hydraulic Test Pressure **320 "**

Date of Hydraulic Test **23/3/23**

" when Safety Valves set **2/5/23.**

Pressure at which Valves were set **186 lbs/sq"**

Date of Accumulation Test **2/5/23.**

Maximum Pressure under Accumulation Test **191 lbs/sq"**

System of Draught **Natural.**

Can Boilers be worked separately? **Yes.**

Makers of Plates **James Dunlop & Co. Ltd., Calderbank.**

" Stay Bars **Scottish Iron & Steel Co. Ltd.**

" Rivets **Rivet, Bolt & Nut Co. Ltd.**

" Furnaces **John Marshall & Co., Motherwell.**

Greatest Internal Diam. of Boilers **11'-10 1/2"**

" " Length " **10'-10 1/8"**

Square Feet of Heating Surface each Boiler **1349 sq. ft.**

" " Grate " " **35.87 sq. ft.**

No. of Safety Valves each Boiler **One pair Rule Diam. 2 3/8" b. Actual 2 1/2"**

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

No. of Pressure Gauges, each Boiler **one** No. of Water Gauges **one.**

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

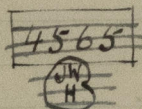
B.C. TEST

4.565  
320 lbs.

W.P. 180 lbs.

J.W.H.

23/3/23.





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?

yes.

No. of Strakes of Shell Plating in each Boiler

One

Plates in each Strake

2

Thickness of Shell Plates Approved

$\frac{63}{64}$ "

in Boilers

"H.W.U."

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

$\frac{3}{4}$ "

inside

$\frac{7}{8}$ "

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

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

Pitch

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

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

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

Pitch

2.81"

No. of Rows of Rivets in Back End Circumferential Seams

2

Are these Seams Hand or Machine Riveted?

Machine.

Diar. of Rivet Holes

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

Pitch

2.81"

Size of Manholes in Shell

16" x 12"

Dimensions of Compensating Rings

2'-8" x 2'-4"



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Thickness of End Plates in Steam Space Approved

 $\frac{1}{32}$ "

" " " " in Boilers

Pitch of Steam Space Stays

(see opposite)

Diar. " " " " Approved

 $2\frac{1}{2}$ " &  $2\frac{3}{4}$ "

Threads per Inch

6

" " " " in Boilers

Material of " " "

Steel.

How are Stays Secured?

Nuts both sides.

Diar. and Thickness of Loose Washers on End Plates

✓

" " Riveted " " "

✓

Width " " Doubling Strips "

✓

Thickness of Middle Back End Plates Approved

 $\frac{3}{4}$ "

" " " " in Boilers

Thickness of Doublings in Wide Spaces between Fireboxes

✓

Pitch of Stays at

" " " "

 $13\frac{1}{8}$ " x  $8\frac{1}{2}$ " (vertical)

Diar. of Stays Approved

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

Threads per Inch

10

" " in Boilers

Material "

Steel

Are Stays fitted with Nuts outside?

yes.

Thickness of Back End Plates at Bottom Approved

 $\frac{3}{4}$ "

" " " " in Boilers

Pitch of Stays at Wide Spaces between Fireboxes

(various.)

Thickness of Doublings in " "

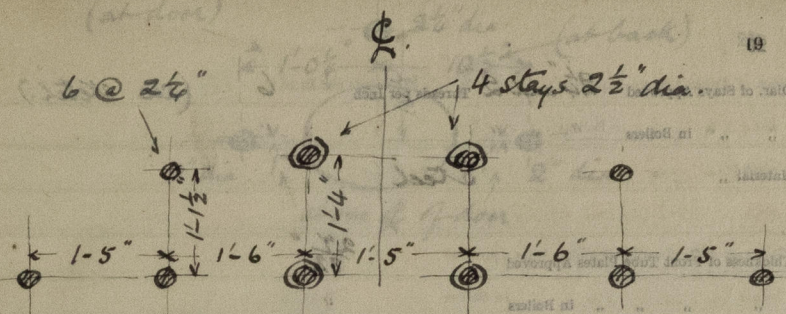
Thickness of Front End Plates at Bottom Approved

 $\frac{24}{32}$ "

" " " " in Boilers

No. of Longitudinal Stays in Spaces between Furnaces

3



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Diar. of Screwed Stays Approved

1 5/8"

Threads per Inch

10

" " " in Boilers

Material " "

Steel.

Thickness of Combustion Chamber Sides Approved

2 1/32"

" " " " in Boilers

Pitch of Screwed Stays in C.O. Sides

9 3/4" x 8 3/8" (vert.)

Diar. " " Approved

1 5/8"

Threads per Inch

10

" " " in Boilers

Material " "

Steel.

Thickness of Combustion Chamber Backs Approved

2 1/32"

" " " " in Boilers

Pitch of Screwed Stays in C.O. Backs

9 3/4" x 8 3/8" (vert.)

Diar. " " Approved

1 5/8"

Threads per Inch

10

" " " in Boilers

Material " "

Steel.

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

Yes.  
3/4"

Thickness of Combustion Chamber Bottoms

No. of Girders over each Wing Chamber

5

" " " Centre "

(none)

Depth and Thickness of Girders

7 1/2" x 13/16" (plates - double)

Material of Girders

Steel.

No. of Stays in each

2.

No. of Tubes, each Boiler

142

Size of Lower Manholes

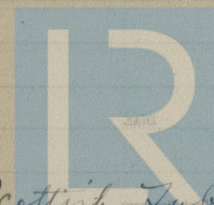
16" x 12"

## VERTICAL DONKEY BOILERS

Type  
 Height  
 Height of Boiler Crown above First Grate  
 Are Boiler Crown Flats or Dished?  
 Internal Radius of Dished Boilers  
 Thickness of Plates  
 Description of Stays in Boiler Crown  
 Diameter of Rivet Heads  
 Pitch  
 Height of Waterbox Crown above First Grate  
 Are Waterbox Crown Flats or Dished?  
 External Radius of Dished Crown  
 Thickness of Plates  
 Material  
 No. of Crown Stays  
 Diameter of Rivet at Top  
 No. of Water Tubes  
 Material of Water Tubes  
 Size of Manhole in Shell  
 Description of Combustion Room  
 Heating Surface, each Boiler  
 Grate Surface

## SUPERHEATERS

Description of Superheaters  
 Where situated  
 Which boiler are connected to superheaters?  
 Can superheaters be used on white boilers and why?  
 No. of Water Tubes  
 Material of Water Tubes  
 Size of Manhole in Shell  
 Description of Combustion Room  
 Heating Surface, each Boiler  
 Grate Surface



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 The Scottish Tube Co. Ltd. Coatbridge.  
 Chas. McNeil, Ltd. Glasgow.



## 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		
Diarr. 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	Diarr.	Material
External Diarr. of Firebox at Top	Bottom	Thickness of Plates
No. of Water Tubes	Ext. Diarr.	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	Diarr.
Are " " fitted with Easing Gear?	
Date of Hydraulic Test	Test Pressure
Date when Safety Valves set	Pressure on Valves

## MAIN STEAM PIPES

No. of Lengths	4
Material	Steel
Joined, Welded or Bolted	Welded
Internal Diarr.	24
Thickness	2 W. 8.
How are Flanges secured?	Secured with bolts
Date of Hydraulic Test	26/11/22
Test Pressure	240 lbs



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## MAIN STEAM PIPES.

No. of Lengths	4
Material	Wrot iron
Brazed, Welded or Seamless	Rapewelded
Internal Diam.	3 1/2"
Thickness	5 w.g.
How are Flanges secured?	Screwed with vanishing thread, & expanded.
Date of Hydraulic Test	26/4/23.
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 ROTARY VALVES.

No. of Lengths	4
Material	Wrot iron
Brazed, Welded or Seamless	Rapewelded
Internal Diam.	3 1/2"
Thickness	5 w.g.
How are Flanges secured?	Screwed with vanishing thread, & expanded.
Date of Hydraulic Test	26/4/23.
Test Pressure	540 lb/sq"

## FEED WATER HEATERS

No. of Lengths	4
Material	Wrot iron
Brazed, Welded or Seamless	Rapewelded
Internal Diam.	3 1/2"
Thickness	5 w.g.
How are Flanges secured?	Screwed with vanishing thread, & expanded.
Date of Hydraulic Test	26/4/23.
Test Pressure	540 lb/sq"

## FEED WATER FILTERS

No. of Lengths	4
Material	Wrot iron
Brazed, Welded or Seamless	Rapewelded
Internal Diam.	3 1/2"
Thickness	5 w.g.
How are Flanges secured?	Screwed with vanishing thread, & expanded.
Date of Hydraulic Test	26/4/23.
Test Pressure	540 lb/sq"

## STEERING GEAR

No. of Lengths	4
Material	Wrot iron
Brazed, Welded or Seamless	Rapewelded
Internal Diam.	3 1/2"
Thickness	5 w.g.
How are Flanges secured?	Screwed with vanishing thread, & expanded.
Date of Hydraulic Test	26/4/23.
Test Pressure	540 lb/sq"



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## EVAPORATORS.

No. *(none.)* Type *(none.)* Tons per Day  
 Makers  
 Working Pressure ☒ Test Pressure Date of Test  
 Date of Test of Safety Valves under Steam

## FEED WATER HEATERS.

No. *One* Type *Contact* 3378  
 Makers *Davie & Horne Ltd.*  
 Working Pressure *180 lb/sq* Test Pressure *400 lb/sq* Date of Test *9/2/23.*

## FEED WATER FILTERS.

No. *One* Type *gravitation* Size  
 Makers *Dunlop Bremner & Co. Ltd.*  
 Working Pressure ☒ Test Pressure ☒ Date of Test ☒

## STEERING GEAR.

*Doukin & Co. Ltd.* 4873

## LIST OF DONKEY PUMPS.

*Ballast, 4" x 8" x 8", vert. duplex, by*  
*Dawson & Downie, Ltd.*  
*General service, 4" x 4 1/2" x 8", vert. dup.*  
*by Same Makers.*  
*Sanitary, 4" x 2 3/4" x 5", vert. dup. by*  
*Same Makers.*



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## SPARE GEAR LIST

No. of Top End Bolts.	2	No. of Bot. End Bolts.	2	No. of Cylinder Cover Studs	6
" Coupling Bolts	1 set.	" Main Bearing Bolts	2	" Valve Chest "	6
" Junk Ring Bolts	3	" Feed Pump Valves	1 set.	" Bilge Pump Valves	1 set.
" H.P. Piston Rings	1 set.	" M.P. Piston Rings	1 set.	" L.P. Piston Rings	1 set.
" " Springs	✓	" " Springs	✓	" " Springs	✓
" Safety Valve "	1	" Fire Bars	$\frac{1}{2}$ set (ie. for 2 furnaces)	" Feed Check Valves	1
" Piston Rods	✓	" Connecting Rods	✓	" Valve Spindles	✓
" Air Pump Rods	✓	" Air Pump Buckets	✓	" Air Pump Valves	1 set.
" Cir. "	✓	" Cir. "	✓	" Cir. "	✓
" Crank Shafts	✓	" Crank Pin Bushes	✓	" Crosshead Bushes	✓
" Propeller Shafts	✓	" Propellers	✓	" Propeller Blades	2
" Boiler Tubes	6	" Condenser Tubes	10	" Condenser Ferrules	24

## OTHER ARTICLES OF SPARE GEAR:—

50 Assorted bolts & nuts.  
 2 cwt. " plates.  
 6 iron bars, 6'-0" by various diam.  
 1 escape valve spring of each size.  
 1 feed pump. "  
 12 gauge glasses.

## REFRIGERATORS



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Direct-coupled to single cylinder steam engine  
by W. Lissou & Co. Ltd. Gloucester. 2206

## ELECTRIC LIGHTING.

Installation Fitted by *H. T. Robertson & Co., Glasgow.*  
No. and Description of Dynamos *One 7.5 Kw. Comp. wound* 38124  
Makers of Dynamos *Lawrence Scott & Co. Ltd. Norwich.*  
Capacity " *68* Amperes, at *110* Volts, *575* Revols. per Min.  
Current Alternating or Continuous *Continuous*  
Single or Double Wire System *Double*  
Position of Dynamos *Port 'tween deck, engine room.*  
" Main Switch Board " " " "  
No. of Circuits to which Switches are provided on Main Switch Board *9 (and one spare.)*

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.
Owner & Captain.	11	16	5.5	$\frac{1}{1029}$		98%	1000 meg.
Deck hands.	14	"	4	"		"	"
Navigation.	15	16 & 32	10	"		"	"
Dining Saloon.	8	16	4	"		"	"
Engineers.	14	"	4	"		"	"
Engine-room.	20	"	10	"		"	"
Stokehold.	3	"	1.5	"		"	"
Cargo cluster.	20	"	10	"		"	"
Hold lights.	12	"	6	"		"	"
(spare.)							

Total No. of Lights *114* No. of Motors driving Fans, &c. *(none)* No. of Heaters *(none)*  
Current required for Motors and Heaters ☒



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

(none.)

Are Cut-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. 3/029 S.W.G., Largest, No. 19/072 S.W.G.

How are Conductors in Engine and Boiler Spaces protected? Galvanized conduit.

" Saloons, State Rooms, &amp;c., " ? Lead-covered.

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

Galvanized conduit.

"

Lead bushes, or gal-

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?

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?

500,000 Ohms.

Is the Installation supplied with a Voltmeter?

" " " an Ampere Meter?

Date of Trial of complete Installation

7/5/23.

Duration of Trial

6 hours.

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

Governor trial.

Running at 57 amps. 110 volts.

All switches OUT; momentary 120 volts, temp 117

" " IN; " 105 " " 107



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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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

Are the Machinery, Boilers, and other parts of the vessel constructed in accordance with 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. *Yes.*

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. "Pabjune," 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.

H.S. 2698 Sq. ft. 16 : 3 : 9

G.S. " : :

## DONKEY BOILERS.

H.S. " : :

G.S. " : :

£ : :

## ENGINES.

L.P.C. 29 Cub. ft. 24 : 10 : -

£ : :

Testing, &c. ... : :

£ : :

Expenses ... : :

Total ... £ : :

It is submitted that this Report be approved,

*W. H. King*  
Chief Surveyor.

Approved by the Committee for the Class of M.B.S.\* on the 25<sup>th</sup> July 1923

Fees advised

Fees paid



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# Visits.

14-12-22  
 21-12-22 (Boilers)  
 22-12-22  
 25-12-22  
 11-1-23  
 17-1-23. (Boilers)  
 19-1-23.  
 22-1-23. (Boilers)  
 24-1-23.  
 29-1-23. (Boilers)  
 31-1-23.  
 1-2-23. (Boilers)  
 2-2-23  
 8-2-23  
 13-2-23.  
 15-2-23 (Boilers)  
 19-2-23.  
 20-2-23 (Boilers)  
 23-2-23 (Boilers)  
 28-2-23.  
 2-3-23 (Boilers)  
 8-3-23.  
 14-3-23 (Boilers)  
 15-3-23.  
 19-3-23  
 21-3-23 " (Boilers)  
 22-3-23 " (Boilers)  
 24-3-23  
 3-4-23



13-4-23

14 - " (Lunch) SS-5-41

18 " (Lunch) SS-5-42

20 " SS-5-43

24 " SS-5-44

26 " SS-5-45

28 " (Lunch) SS-5-46

2/5/23 GML SS-5-47

3 " (Lunch) SS-5-48

7 " SS-5-49

(Lunch) SS-5-50

SS-5-51

(Lunch) SS-5-52

SS-5-53

SS-5-54

SS-5-55

(Lunch) SS-5-56

SS-5-57

(Lunch) SS-5-58

SS-5-59

(Lunch) SS-5-60

SS-5-61

(Lunch) SS-5-62

SS-5-63

(Lunch) SS-5-64

SS-5-65

SS-5-66

(Lunch) SS-5-67

SS-5-68

SS-5-69



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