

No 2076

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 2072. No. in Register Book

3420

N.N. "BROOKMOUNT"

S.S. "EDDYSTONE"

Makers of Engines D. & W. HENDERSON & CO. LTD

Works No. 787.M.

Makers of Main Boilers D. & W. HENDERSON & CO. LTD

Works No. 787.M.

Makers of Donkey Boiler COCHRAN & CO. (ANNAN) LTD

Works No. 1027.G.

MACHINERY



© 2020

Lloyd's Register
Foundation

72 111 001471-002476-0067

No.

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

28th September 1927

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ~~Single Triple~~ ~~Gwin Quadruple~~ Screw STEAMSHIP

"
EDDYSTONE
"

Official No. Port of Registry GLASGOW

Registered Owners THE CLYDE SHIPPING CO. LTD

Engines Built by D. & W. HENDERSON & CO. LTD

at GLASGOW

Main Boilers Built by D. & W. HENDERSON & CO. LTD

at GLASGOW

Donkey " " COCHRAN & CO. (ANNAN) LTD

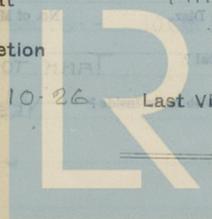
at ANNAN

Date of Completion

First Visit 7-10-26

Last Visit 19-9-27

Total Visits 62



© 2020

Lloyd's Register
Foundation

RECIPROCATING ENGINES.

Works No. 787 M No. of Sets ONE Description

TRIPLE EXPANSION, SURFACE CONDENSING DIRECT ACTING

No. of Cylinders each Engine 3 No. of Cranks 3

Dia. of Cylinders 21" 34" 56" Stroke 39"

Cubic feet in each L.P. Cylinder 55.57

Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cyl.? YES

" " " each Receiver? YES

Type of H.P. Valves, PISTON

" 1st I.P. " ANDREWS & CAMERON

" 2nd I.P. " ✓

" L.P. " DOUBLE PORTED SLIDE

" Valve Gear STEPHENSONS LINK MOTION

" Condenser BUILT Cooling Surface 2306 sq. ft.

Diameter of Piston Rods (plain part) 5½" Screwed part (bottom of thread) 4½"

Material " 1. STEEL

Dia. of Connecting Rods (smallest part) 5½" Material Do.

" Crosshead Gudgeons 6¼" Length of Bearing 7" Material Do.

No. of Crosshead Bolts (each) 4 Dia. over Thrd. 2½" Thrds. per inch STEEL

" Crank Pin " " 2 " 3¼" " STEEL

" Main Bearings 6 Lengths 11¾"

" Bolts in each 2 Dia. over Thread 2½" Threads per inch 4 Material

" Holding Down Bolts, each Engine SEE OVER. Dia. No. of Metal Chocks 101 + 4 CORNER CHOCKS.

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 A. & J. INGLIS, LTD. GLASGOW

Piston " " Do.

Crossheads, " BAXTER & SONS, MOTHERWELL.

Connecting Rods, Finished by D & W. HENDERSON & CO. LTD

Piston " " Do.

Crossheads, " Do.

Date of Harbour Trial 25-2-27

" Trial Trip 15-9-27

Trials run at FIRTH OF CLYDE

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

If so, what was the I.H.P. 1815 Revols. per min. 102

Pressure in 1st L.P. Receiver, 180 lbs., 2nd L.P., 70 lbs., L.P., 12 lbs., Vacuum, 26.5 ins.

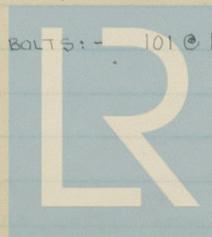
Speed on Trial 13.61 KNOTS

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

Builders' estimated I.H.P. NORMAL — 1375 Revols. per min. 85
MAXIMUM — 1875 102

Estimated Speed 13½ KNOTS

HOLDING DOWN BOLTS: - 101 @ 1¼" DIA. + 32 (CORNER CHOCKS)



© 2020
Lloyd's Register
Foundation

TURBINE ENGINES.

Works No. Type of Turbines

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

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

Is Single or Double Reduction Gear employed?

Diar. of 1st Reduction Pinion } Width Pitch of Teeth
" 1st " Wheel

Estimated Pressure per lineal inch

Diar. 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.

" " L.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-ELEMENTS OF INSTALLATION.

No. of Turbo-Gearing Sets Capacity of each

Type of Turbine employed

Description of Gearing

No. of Motors driving Propeller Shafts

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

Is Single or Double Reduction Gear employed?

Description of Motors

Diar. of 1st Reduction Pinion

" 1st " Wheel

Diar. of 2nd Reduction Pinion

" 2nd " Wheel

Estimated Pressure per lineal inch

Revs. per min. of H.P. Turbines at Full Power

" " L.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



© 2020

Lloyd's Register
Foundation

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

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 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.

SHAFTING.

Are the Crank Shafts Built or Solid? **BUILT**

No. of Lengths in each **2** Angle of Cranks **120°**

Diar. by Rule **11.05"** Actual **11½"** In Way of Webs **11½"**

" of Crank Pins **11½"** Length between Webs **1'-1¾"**

Greatest Width of Crank Webs **1'-9"** Thickness **8"**

Least " " **1'-9"** " " **8"**

Diar. of Keys in Crank Webs **1¾"** Length **5"**

" Dowels in Crank Pins **1¼"** Length **5"** Screwed or Plain **PLAIN**

No. of Bolts each Coupling **6** Diar. at Mid Length **2¾"** Diar. of Pitch Circle **1'-5"**

Greatest Distance from Edge of Main-Bearing to Crank Web **11½"**

Type of Thrust Blocks **MICHELL**

No. " Rings **✓**

Diar. of Thrust Shafts at bottom of Collars **11½"** No. of Collars **ONE**

" " Forward Coupling **11½"** At Aft Coupling **11½"**

Diar. of Intermediate Shafting by Rule **10.492"** Actual **11"** No. of Lengths **3**

No. of Bolts, each Coupling **6** Diar. at Mid Length **2¾"** Diar. of Pitch Circle **1'-5"**

Diar. of Propeller Shafts by Rule **11.42"** Actual **12"** At Couplings **12½"**

Are Propeller Shafts fitted with Continuous Brass Liners? **YES**

Diar. over Liners **1'-1⅛" to 1'-1⅝"** Length of After Bearings **4'-0"**

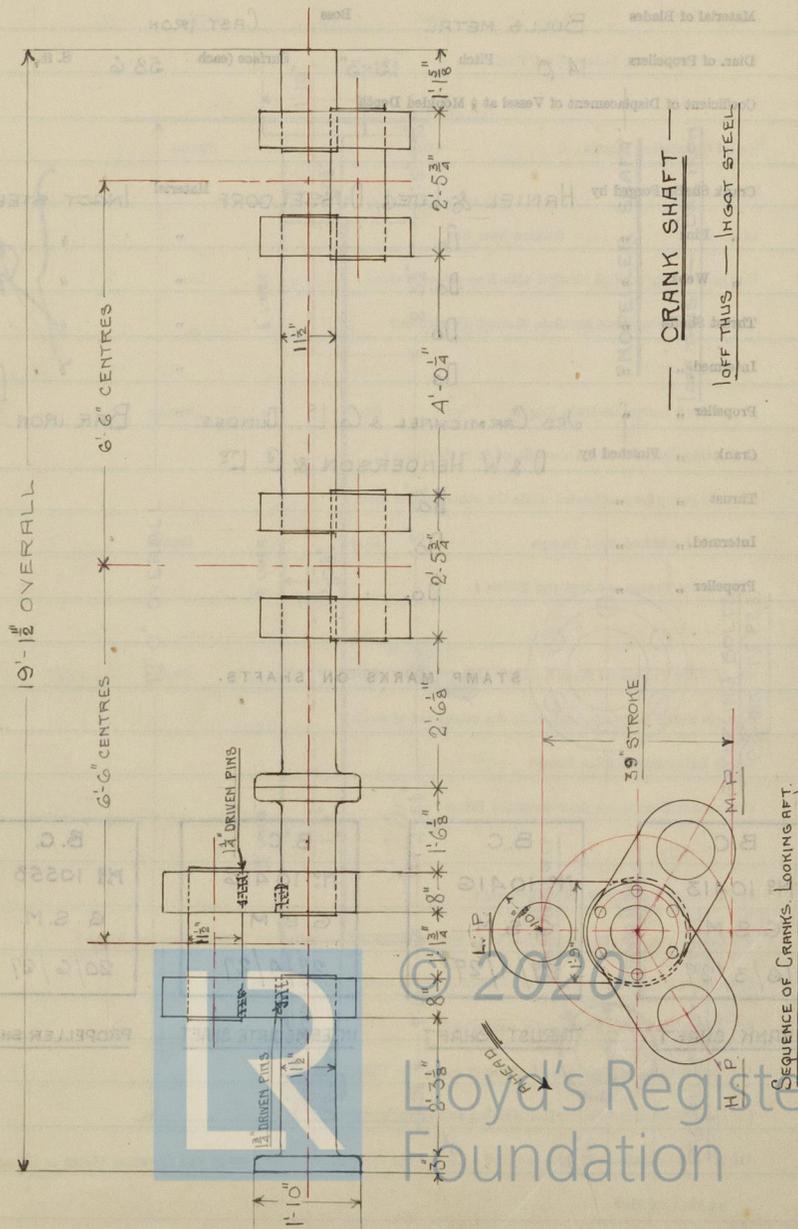
Of what Material are the After Bearings composed? **BRASS & LIGNUMVITÆ**

Are Means provided for lubricating the After Bearings with Oil? **No**

" " to prevent Sea Water entering the Stern Tubes? **No**

If so, what Type is adopted?

SKETCH OF CRANK SHAFT.



No. of Blades each Propeller 4 Fitted or Solid? FITTED
 Material of Blades BULL'S METAL Boss CAST IRON
 Diam. of Propellers 14' 0" Pitch 13' 3" Surface (each 58' 6" S. ft.)
 Coefficient of Displacement of Vessel at $\frac{3}{4}$ Moulded Depth

Crank Shafts Forged by HANIEL & LUEG, DUSSELDORF. Material INGOT STEEL
 " Pins " Do. " " "
 " Webs " Do. " " "
 Thrust Shafts " Do. " " "
 Intermed. " " Do. " " "
 Propeller " " JAS. CARMICHAEL & Co. L^o. DUNDEE BAR IRON
 Crank " Finished by D. & W. HENDERSON & Co. L^o
 Thrust " " Do.
 Intermed. " " Do.
 Propeller " " Do.

STAMP MARKS ON SHAFTS.

B.C.
 No 10413
 G. S. M.
 16/3/27

CRANK SHAFT

B.C.
 No 10416
 G. S. M.
 27/4/27

THRUST SHAFT

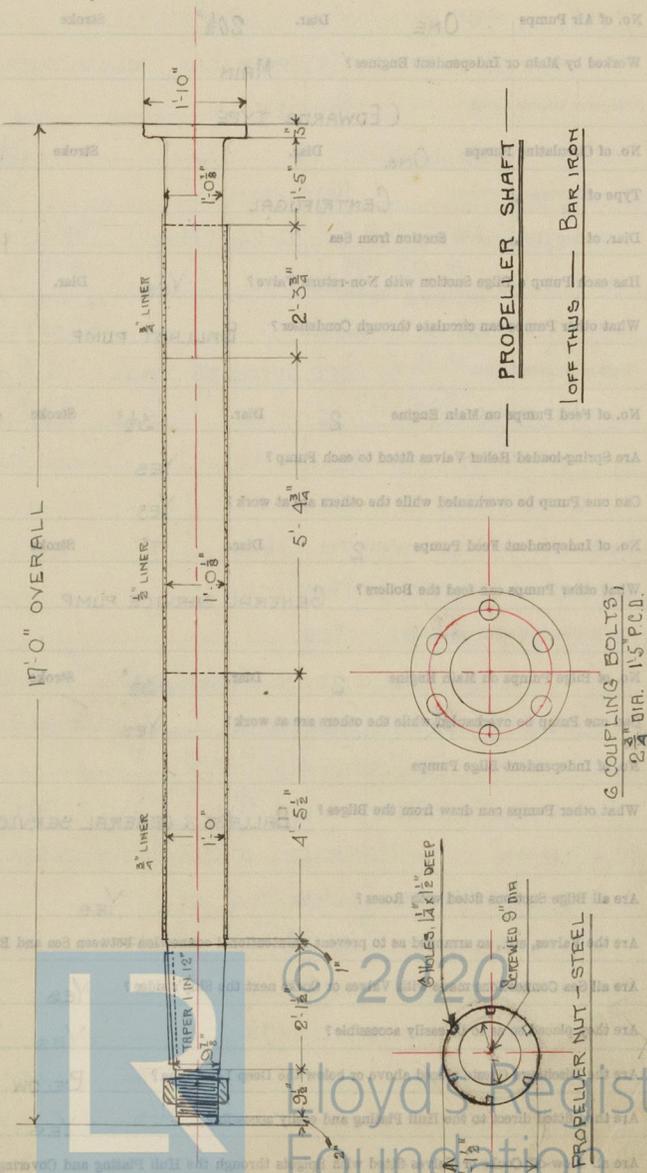
B.C.
 No 10416
 G. S. M.
 27/4/27

INTERMEDIATE SHAFT

B.C.
 No 10553
 G. S. M.
 20/6/27

PROPELLER SHAFT

SKETCH OF PROPELLER SHAFT.



PUMPS, ETC.

No. of Air Pumps ONE Diar. 20½" Stroke 20"

Worked by Main or Independent Engines? MAIN
(EDWARDS TYPE)

No. of Circulating Pumps ONE Diar. ✓ Stroke ✓

Type of " CENTRIFUGAL

Diar. of " Suction from Sea 11"

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. 3½" Stroke 20"

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. 7" Stroke 21"

What other Pumps can feed the Boilers? GENERAL SERVICE PUMP

No. of Bilge Pumps on Main Engine 2 Diar. 3½" Stroke 20"

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? BALLAST & GENERAL SERVICE PUMPS.

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? BELOW

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

PUMPS, ETC.

No. of Air Pumps ONE Diar. 20½" Stroke 20"

Worked by Main or Independent Engines? MAIN
(EDWARDS TYPE)

No. of Circulating Pumps ONE Diar. ✓ Stroke ✓

Type of " CENTRIFUGAL

Diar. of " Suction from Sea 11"

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. 3½" Stroke 20"

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. 7" Stroke 21"

What other Pumps can feed the Boilers? GENERAL SERVICE PUMP

No. of Bilge Pumps on Main Engine 2 Diar. 3½" Stroke 20"

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? BALLAST & GENERAL SERVICE PUMPS.

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? BELOW

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



© 2020

Lloyd's Register
Foundation

BOILERS.

Works No. 787 M.

No. of Boilers 2 Type CYLINDRICAL, MULTITUBULAR

Single or Double-ended SINGLE

No. of Furnaces in each 3

Type of Furnaces DEIGHTON

Date when Plan approved 5-10-26 (MAIN) 12-10-26 (DONKEY)

Approved Working Pressure 185 LBS.

Hydraulic Test Pressure 328 "

Date of Hydraulic Test SEE OPPOSITE PAGE

" when Safety Valves set 25-8-27

Pressure at which Valves were set MAIN - 185 LBS. DONKEY - 100 LBS.

Date of Accumulation Test 25-8-27

Maximum Pressure under Accumulation Test 186 LBS

System of Draught NATURAL

Can Boilers be worked separately? YES

Makers of Plates D. COLVILLE & SONS, L^{TD} ✓
 SPENCER WRAPPER PLATES BY D. COLVILLE & SONS, L^{TD}

" Stay Bars D. COLVILLE & SONS L^{TD} ✓

" Rivets THE NORTH WEST RIVET, BOLT & NUT FACTORY, L^{TD}

" Furnaces JOHN MARSHALL & C. (MOTHERWELL) L^{TD} ✓

Greatest Internal Diam. of Boilers 15'-3"

" " Length " 13'-0"

Square Feet of Heating Surface each Boiler 2566 $\frac{1}{2}$

" " Grate " " 72 $\frac{1}{2}$

No. of Safety Valves each Boiler 2 Rule Diam. $3\frac{3}{16}$ " Actual $3\frac{1}{4}$ "

Are the Safety Valves fitted with Easing Gear? YES

No. of Pressure Gauges, each Boiler ONE No. of Water Gauges 2

" Test Cocks " NONE " Salinometer Cocks 1

STAMP MARKS ON BOILERS

PORT

| |
|---------------------|
| B. C. TEST |
| N ^o 5018 |
| T.P. 328 Lbs |
| W.P. 185 LBS. |
| G. S. M. |
| 24/6/27 |

STARBOARD

| |
|---------------------|
| B. C. TEST |
| N ^o 5018 |
| T.P. 328 Lbs |
| W.P. 185 LBS |
| G. S. M. |
| 24/6/27 |

DONKEY

| |
|---------------------|
| B. C. TEST |
| N ^o 5012 |
| T.P. 200 Lbs |
| W.P. 100 LBS. |
| G. S. M. |
| 24/5/27 |



© 2020
 Lloyd's Register
 Foundation

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

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

Are these Pipes connected to Boilers by Cocks or Valves? No

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

No. of Strakes of Shell Plating in each Boiler ONE

Plates in each Strake 3

Thickness of Shell Plates Approved $1 \frac{21}{64}$ "

in Boilers

Are the Rivets Iron or Steel? STEEL

Are the Longitudinal Seams Butt or Lap Joints? M BUTT

Are the Butt Straps Single or Double? DOUBLE

Are the Double Butt Straps of equal width? No

Thickness of outside Butt Straps 1"

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

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 $\frac{1}{8}$ " Pitch $2 \frac{1}{8}$ "

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 $\frac{1}{8}$ " Pitch $3 \cdot 737$ "

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

Are these Seams Hand or Machine Riveted? MACHINE

Diar. of Rivet Holes $\frac{1}{8}$ " Pitch $3 \cdot 737$ "

Size of Manholes in Shell $16" \times 12"$

Dimensions of Compensating Rings $2 \frac{1}{2} \times 11 \frac{1}{8} \times 2 \frac{1}{8} \times 1 \frac{5}{8}$ "



© 2020

Lloyd's Register
Foundation

| | |
|---|---|
| Thickness of End Plates in Steam Space Approved | 1" |
| " " " " " in Boilers | 1" |
| Pitch of Steam Space Stays | 1'-3 1/2" x 1'-3 1/4" |
| Diar. " " " " Approved | 2 1/2" Threads per Inch |
| " " " " " in Boilers | 2 1/2" " |
| Material of " " " | STEEL |
| How are Stays Secured? | DOUBLE NUTS |
| Diar. and Thickness of Loose Washers on End Plates | ✓ |
| " " Riveted " " " | ✓ |
| Width " " Doubling Strips " | Double ✓ |
| Thickness of Middle Back End Plates Approved | 13/16" |
| " " " " " in Boilers | 13/16" |
| Thickness of Doublings in Wide Spaces between Fireboxes | ✓ |
| Pitch of Stays at " " " " | 8" + 8 1/2" |
| Diar. of Stays Approved | TOP CORNER, 2" MARGINAL, 1 3/4" OTHERS 1 5/8" |
| " " " " " in Boilers | 9 |
| Material " | LOWMOOR IRON |
| Are Stays fitted with Nuts outside? | YES |
| Thickness of Back End Plates at Bottom Approved | 13/16" |
| " " " " " in Boilers | 13/16" |
| Pitch of Stays at Wide Spaces between Fireboxes | 8" x 8 1/2" |
| Thickness of Doublings in " " | 3/4" |
| Thickness of Front End Plates at Bottom Approved | 7/8" |
| " " " " " in Boilers | 7/8" |
| No. of Longitudinal Stays in Spaces between Furnaces | 3 |



© 2020

Lloyd's Register
Foundation

| | | | |
|---|-------------|------------------|------------------------|
| Diar. of Stays Approved | 2" & 2 1/4" | Threads per Inch | 6 |
| " " in Boilers | 2 & 2 1/4" | | 6 |
| Material | | | STEEL |
| Thickness of Front Tube Plates Approved | | | 7/8" |
| " " " " in Boilers | | | 7/8" |
| Pitch of Stay Tubes at Spaces between Stacks of Tubes | | | 10" x 1' 2 3/4" |
| Thickness of Doublings in " " " | | | 7/8" |
| " Stay Tubes at " " " | | | 3/8" & 7/16" |
| Are Stay Tubes fitted with Nuts at Front End ? | | | A MARGINAL ONLY |
| Thickness of Back Tube Plates Approved | | | 31/32" |
| " " " in Boilers | | | 31/32" |
| Pitch of Stay Tubes in Back Tube Plates | | | 10" |
| " Plain " | | | 5" |
| Thickness of Stay Tubes | | | 4 @ 7/16", OTHERS 3/8" |
| " Plain " | | | Nº 7 L.S.G. (.176") |
| External Diar. of Tubes | | | 3 3/4" |
| Material | | | IRON, LAPWELDED |
| Thickness of Furnace Plates Approved | | | 5/8" |
| " " " in Boilers | | | 5/8" |
| Smallest outside Diar. of Furnaces | | | 4' - 1 1/2" |
| Length between Tube Plates | | | 8' - 0" |
| Width of Combustion Chambers (Front to Back) | | | 3' - 9 29/32" |
| Thickness of " " Tops Approved | | | 5/8" |
| " " " in Boilers | | | 5/8" |
| Pitch of Screwed Stays in C.C. Tops | | | 8 1/2" |



© 2020

Lloyd's Register
Foundation

| | | | |
|---|--|------------------|---|
| Diam. of Screwed Stays Approved | $1\frac{5}{8}$ " | Threads per Inch | 9 |
| " " " in Boilers | | | 9 |
| Material " " | | LOWMOOR IRON | |
| Thickness of Combustion Chamber Sides Approved | | | $1\frac{5}{8}$ " |
| " " " " in Boilers | | | $1\frac{5}{8}$ " |
| Pitch of Screwed Stays in C.O. Sides | | | $8" \times 8\frac{1}{2}"$ |
| Diam. " " Approved | $1\frac{5}{8}$ " | Threads per Inch | 9 |
| " " " in Boilers | $1\frac{5}{8}$ " | | 9 |
| Material " " | | LOWMOOR IRON | |
| Thickness of Combustion Chamber Backs Approved | | | $\frac{5}{8}$ " |
| " " " " in Boilers | | | $\frac{5}{8}$ " |
| Pitch of Screwed Stays in C.O. Backs | | | $8\frac{1}{4}" \times 8\frac{1}{4}"$ |
| Diam. " " Approved | $2"$, $1\frac{3}{4}"$, $1\frac{5}{8}"$ | Threads per Inch | 9 |
| " " " in Boilers | $2"$, $1\frac{3}{4}"$, $1\frac{5}{8}"$ | | 9 |
| Material " " | | LOWMOOR IRON | |
| Are all Screwed Stays fitted with Nuts inside C.O.? | | Yes | |
| Thickness of Combustion Chamber Bottoms | | | $\frac{3}{16}"$ |
| No. of Girders over each Wing Chamber | | | 5 |
| " " " Centre " | | | 4 |
| Depth and Thickness of Girders | | | $10\frac{3}{8}" \times 2$ PLATES $\frac{7}{8}"$ THICK |
| Material of Girders | | STEEL | |
| No. of Stays in each | | | 4 |
| No. of Tubes, each Boiler | 170 RAIN, 95 STAY. | 265 TOTAL | |
| Size of Lower Manholes | | | $16" \times 12"$ |

VERTICAL DONKEY BOILERS

| | | | |
|---|-----------------------------|------------------------------------|---|
| No. of Boilers | ONE | THE | JOHNSON & CO. LONDON |
| Greatest Int. Diam. | 8' 0" | Height | 15' 6" |
| Height of Boiler Crown above Fire Grate | 11' 12" | Are Boiler Crowns Flat or Dished? | Dished |
| Internal Radius of Dished Boilers | 4' 0" | Thickness of Plates | " |
| Description of Seams in Boiler Crowns | DOUBLE RIVETED, AND JOINTED | | |
| Diam. of Rivet Holes | $\frac{5}{16}"$ | Width of Overlap | $2\frac{1}{2}"$ |
| Height of Firebox Crown above Fire Grate | 5' 2" | Are Firebox Crowns Flat or Dished? | Dished |
| External Radius of Dished Crowns | 3' 0" | Thickness of Plates | " |
| No. of Crown Stays | None | Diam. | " |
| External Diam. of Firebox at Top | 7' 0" | Thickness of Plates | $\frac{1}{2}"$ |
| No. of Water Tubes | None | Int. Diam. | " |
| Material of Water Tubes | | Thickness | " |
| Size of Manholes in Shell | $10" \times 12"$ | Thickness of Compensating Ring | $2\frac{1}{2}"$ DIA. $\frac{1}{2}"$ THICK |
| Heating Surface, each Boiler | 850 sq. ft. | Grate Surface | 57 sq. ft. |
| Description of Superheaters | NONE FITTED | | |
| Which Boilers are connected to superheaters? | None | | |
| Are Superheaters be fitted with valves and working? | None | | |
| No. of Safety Valves and their capacities | None | | |
| Size of Safety Valves | None | | |
| Pressure on Valves | None | | |



© 2020

Lloyd's Register
Foundation

VERTICAL DONKEY BOILERS. *d*

No. of Boilers ONE Type COCHRAN & CO LTD'S VERTICAL
 Greatest Int. Diar. 8'-0" Height 16'-6"
 Height of Boiler Crown above Fire Grate 11'-1 $\frac{1}{2}$ "
 Are Boiler Crowns Flat or Dished? DISHED
 Internal Radius of Dished Ends 4'-0" Thickness of Plates 1"
 Description of Seams in Boiler Crowns SINGLE RIVETED, LAP JOINTED.
 Diar. of Rivet Holes $\frac{29}{32}$ " Pitch 2 $\frac{1}{8}$ " Width of Overlap 2 $\frac{3}{4}$ "
 Height of Firebox Crowns above Fire Grate 3'-2 $\frac{5}{8}$ "
 Are Firebox Crowns Flat or Dished? DISHED
 External Radius of Dished Crowns 3'-6" Thickness of Plates $\frac{5}{8}$ "
 No. of Crown Stays NONE Diar. Material
 External Diar. of Firebox at Top - Bottom 7'-0" Thickness of Plates $\frac{5}{8}$ "
 No. of Water Tubes NONE Ext. Diar. - Thickness -
 Material of Water Tubes -
 Size of Manhole in Shell 16" x 12"
 Dimensions of Compensating Ring 2'-4" DIA. x $\frac{27}{32}$ " THICK
 Heating Surface, each Boiler 850 ϕ Grate Surface 37 ϕ
 Safety valves, No. 2 Diar. 3"

SUPERHEATERS.

Description of Superheaters NONE FITTED

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.



© 2020

Lloyd's Register
Foundation

MAIN STEAM PIPES.

| | | |
|----------------------------|----------------|--|
| No. of Lengths | 1 | PIPES BY THE SCOTTISH TUBE CO. L ^{TD} . — FINISHED BY D. & W. HENDERSON & CO. L ^{TD} . (TUBES BY THE BROMFORD TUBE CO. L ^{TD} .) |
| Material | STEEL | |
| Brazed, Welded or Seamless | SEAMLESS | |
| Internal Diam. | 5½" | |
| Thickness | 5/16" | |
| How are Flanges secured? | SCREWED & EXP. | |
| Date of Hydraulic Test | 24-6-27 | |
| Test Pressure | 555 LBS. | |
| No. of Lengths | 2 | |
| Material | STEEL | |
| Brazed, Welded or Seamless | SEAMLESS | |
| Internal Diam. | 5½" | |
| Thickness | 5/16" | |
| How are Flanges secured? | SCREWED & EXP. | |
| Date of Hydraulic Test | 5-8-27 | |
| Test Pressure | 555 LBS. | |
| No. of Lengths | | |
| Material | | |
| Brazed, Welded or Seamless | | |
| Internal Diam. | | |
| Thickness | | |
| How are Flanges secured? | | |
| Date of Hydraulic Test | | |
| Test Pressure | | |

LIST OF EVAPORATORS



© 2020

Lloyd's Register
Foundation

EVAPORATORS.

| No. | Type | 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 | DIRECT CONTACT. | 21" | No | 83072 |
| Makers | G. & J. WEIR, L ^{td} , CATHCART, GLASGOW. | | | | | |
| Escape eel to Working Pressure | 20 LBS. | Test Pressure | 40 LBS. | Date of Test | 5-4-27 | |

FEED WATER FILTERS.

| | | | | | |
|------------------|--|---------------|-------------|--------------|----------|
| No. | 1 | Type | GRAVITATION | Size | 240 GALS |
| Makers | D. & W. HENDERSON & C. L ^{td} | | | | |
| Working Pressure | | Test Pressure | | Date of Test | |

LIST OF DONKEY PUMPS.

| | | | | | |
|---|----------|---------------------------------------|----|-------|----------------------|
| BALLAST PUMP | 1 in No. | J. H. CARRUTHERS & C. L ^{td} | No | 7342 | 8" x 9" x 9" |
| SUCTIONS:- E.R. BILGE. SEA TANKS. BILGE MAIN. HOSE CONNECTION. | | | | | |
| DISCHARGES:- OVERBOARD. DECK. M. CONDENSER. FWD & AFT TANKS. | | | | | |
| FRESH WATER PUMP | 1 in No. | J. H. CARRUTHERS & C. L ^{td} | No | 7327 | 4 1/2" x 4 1/2" x 5" |
| SUCTION:- ENGINE RM. TANK. | | | | | |
| DISCHARGE:- FRESH WATER TANK. FILTER. | | | | | |
| ASH EJECTOR PUMP | 1 in No. | J. H. CARRUTHERS & C. L ^{td} | No | 7344 | 8" x 5" x 8" |
| (GENERAL SERVICE) SUCTIONS:- SEA. CONDENSER. HOTWELL. BILGES. BALLAST TANKS. BOILERS. | | | | | |
| DISCHARGES. ASHES. HOSE. O'BOARD. DECK. SAN. TANK. M. & D. BOILERS. | | | | | |
| DONKEY BOILER FEED PUMP | 1 in No. | J. H. CARRUTHERS & C. L ^{td} | No | 7343 | 4 1/2" x 3" x 5" |
| SUCTION:- SEA. | | | | | |
| DISCHARGES:- DONKEY BOILER. SANITARY TANK. | | | | | |
| MAIN FEED PUMPS | 2 in No. | G. & J. WEIR, L ^{td} | No | 83073 | 9" x 7" x 21" |
| SUCTIONS:- SEA. HEATER. CONDENSER. HOTWELL. TANK. DISC:- M. & A. FEED. | | | | | |
| CIRCULATING PUMPS | 1 in No. | DRYSDALE & C. L ^{td} | No | 18108 | |
| SUCTION:- SEA. BILGE DIRECT. DISCHARGE:- O'BOARD THRO' COND ^{ns} . | | | | | |
| SANITARY PUMP | 1 in No. | DRIVEN BY MAIN ENGINES. | | | 1 1/2" x 10" |
| SUCTION:- SEA. DISCHARGE:- SANITARY TANK. | | | | | |

PUMPING TRIALS SATISFACTORILY CARRIED OUT ON THE 7th SEPT. 1927.



© 2020

Lloyd's Register
Foundation

REGISTERED
 LIGHTING

Capacity of sets
 No. of lamps
 Life of lamps
 This form is to be filled in by the Engineer in Charge of the vessel and is to be submitted to the Registrar of Shipping for registration.

ELECTRIC LIGHTING.

Installation Fitted by HARLAND & WOLFF, L^{td}

No. and Description of Dynamos ONE 4 POLE COMPOUND WOUND

Makers of Dynamos MAJOR & COULSON, GLASGOW

Capacity " 196 Amperes, at 110 Volts, 250 Revols. per Min.

Current Alternating or Continuous CONTINUOUS.

Single or Double Wire System DOUBLE.

Position of Dynamos ENGINE ROOM, BOTTOM PLATFORM.

" Main Switch Board BESIDE GENERATOR.

No. of Circuits to which Switches are provided on Main Switch Board 10

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. |
|--------------------------------------|-------------------|----------------|-------------------------|--------------------|------------------------|----------------------------|---------------------------------|
| 1. NAVIGATION | 12 | 6 C.P. to 40 W | 7.3 | 7/036 | TO I.E.E. REQUIREMENTS | AREA D " '0070 | 900 MEGS. |
| 2. 1 st CL. ACCOMMODATION | 118 | 40 & 20 W | 36 | 7/052 | " | " '0145 | " |
| 3. NAV. & ENG'S OFFS. & E.P. | 49 | 60 & 40 W | 22 | 7/036 | " | " '0070 | " |
| 4. STEERAGE ACOM? | 14 | 40 W | 5.3 | 3/036 | " | " '0030 | 1250 " |
| 5. CREW'S QUARTERS | 23 | 40 W | 5.3 | 3/036 | " | " | " |
| 6. MAIN DECK | 19 | " | 7.0 | 3/036 | " | " | " |
| 7. M ^o HOLD & TWEEN DEKs | 16 | " | 6.6 | " | " | " | " |
| 8. FORE " " " " | 12 | " | 5.0 | " | " | " | " |
| 9. AFT " " " " | 14 | " | 6.0 | " | " | " | " |
| 10. CARGO CLUSTERS & WIRELESS | 24 | 32 C.P. | 30.2 | 7/044 | " | " '0100 | 900 " |

Total No. of Lights 301 + G CONNECTIONS No. of Motors driving Fans, &c. No. of Heaters

Current required for Motors and Heaters

Positions of Auxiliary Switch Boards, with No. of Switches on each 333

1 IN STEERAGE ACOM^m FORWARD FOR HOLD & TWEEN DECK - 4 SWITCHES
 1 MAIN DECK CATTLE SPACE " No. 2 HOLD & " " 4
 1 ENGINE ROOM ENTRANCE " MAIN DECK CATTLE SPACE 8
 1 " " " ENGINE & BOILER R^m LIGHTING 8

Are Out-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits YES. DOUBLE POLE FUSES

On Aux. " " each Auxiliary Circuit YES "

Wherever a Cable is reduced in size YES

To each Lamp Circuit YES

To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted YES

Are the Fuses of Standard Sizes? YES (No. 33 S.W.G.)

Are all Switches and Out-outs constructed of Non-inflammable Material? YES

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

Smallest Single Wire used, No. 3/029 S.W.G., Largest, No. 37/093 S.W.G.

How are Conductors in Engine and Boiler Spaces protected? LEAD COVERED, ARMoured & BRAIDED

" Saloons, State Rooms, &c., " ? LEAD COVERED

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp Heat:— L.C.A. & B. RUN ON PERFORATED SHEET IRON TRAYS
 Damp:— L.C. IN CONDUIT

(2) " " passing through Bunkers or Cargo Spaces L.C.A. & B.

(3) " " Deck Beams or Bulkheads BUSHED WITH LEAD

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? YES

Are all Hull Connections for Single-Wire Systems made with Screws of large Surface? YES

Are the Dynamos, Motors, Main and Branch Cables, so placed that the Compasses are not injuriously affected by them? YES

Have Tests been made to prove that this condition has been satisfactorily fulfilled? YES

Has the Insulation Resistance over the whole system been tested? YES

What does the Resistance amount to? 1 MegOhms.

Is the Installation supplied with a Voltmeter? YES

" " " an Ampere Meter? YES

Date of Trial of complete Installation 7TH SEPT. 1927 Duration of Trial 6 HOURS

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



© 2020

Lloyd's Register
Foundation

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.

as ascertained by ^{us} from personal examination

"EDDYSTONE"

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

Fees—

MAIN BOILERS.

| | Sq. ft. | £ | s. | d. |
|------|---------|----|----|----|
| H.S. | | 27 | 16 | 6 |
| G.S. | | | | |

DONKEY BOILERS.

| | Sq. ft. | £ | s. | d. |
|------|---------|---|----|----|
| H.S. | | | | |
| G.S. | | | | |

ENGINES.

| | Cub. ft. | £ | s. | d. |
|------------------|----------|-------------|----------|----------|
| L.P.C. | | 37 | 16 | 0 |
| Testing, &c. ... | | | | |
| Expenses ... | | 16 | 10 | 0 |
| Total ... | | £ 82 | 2 | 6 |

It is submitted that this Report be approved,

W. Lee King
 Chief Surveyor.

Approved by the Committee for the Class of M.B.S.* on the 19th October 1927

Fees advised

Fees paid



© 2020

Lloyd's Register
 Foundation
 Secretary.

GENERAL CONSTRUCTION

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

It is submitted that this Report be approved.

Handwritten signature

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

Approved by the Committee for the Class of M.B.S. on this 10th day of 1910

Handwritten signature



© 2020

Lloyd's Register Foundation



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation



© 2020

Lloyd's Register
Foundation