

No. 2355

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

Report No. 2377 No. in Register Book 3794

S.S. "PLATANO"
Makers of Engines British Thomson Houston Co. Ltd.
Cammell Laird & Co. Ltd.

Works No. 967

Makers of Main Boilers Cammell Laird & Co. Ltd.

Works No. 967 I II III IV V

Makers of Donkey Boiler ✓

Works No. ✓

MACHINERY.

© 2021

Lloyd's Register
Foundation

014642-014653-0034

No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office *1st August 1930.*

Surveyor's Report on the New Engines, Boilers, and Auxiliary Machinery of the ~~Single Triple~~ *S/S "PLATANO"*

Official No. *161437* Port of Registry *London.*

Registered Owners *Messrs Elders & Fyffes Ltd.,*
31-2 Bow Street, Covent Garden, London.

Engines Built by *British Thomson Houston Co. Ltd.,*
& Cammell Laird & Co. Ltd.,
at *Rugby and Birkenhead.*

Main Boilers Built by *Cammell Laird & Co. Ltd.,*
at *Birkenhead.*

Donkey " " ✓

at " " ✓

Date of Completion *25/6/30*

Rugby 7/10/29

First Visit

L. pool 21/8/29

Last Visit

25/6/30 } 109 Total Visits *122*

Lloyd's Register
Foundation

RECIPROCATING ENGINES.

Works No.

No. of Sets

Description

No. of Cylinders each Engine

No. of Cranks

Diars. of Cylinders

Cubic feet in each L.P. Cylinder

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

" " each Receiver?

Type of H.P. Valves,

1st I.P. "

2nd I.P.,

L.P. "

" Valve Gear

" Condenser

Cooling Surface

sq. ft.

Diameter of Piston Rods (plain part)

Screw part (bottom of thread)

Material "

Diar. of Connecting Rods (smallest part)

Material

" Crosshead Gudgeons

Length of Bearing

Material

No. of Crosshead Bolts (each)

Diar. over Thrd.

Thrds. per inch

Material

" Crank Pin " "

" Main Bearings

Lengths

" Bolts in each

Diar. over Thread

Threads per inch

Material

" Holding Down Bolts, each Engine

Diar.

No. of Metal Chocks

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

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

If not, how are they fitted?

Connecting Rods, Forged by

Piston "

Crossheads,

Connecting Rods, Finished by

Piston "

Crossheads,

Date of Harbour Trial

" Trial Trip

Trials run at

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

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

Revs. per min.

Pressure in 1st I.P. Receiver,

lbs., 2nd I.P.,

lbs., L.P.,

lbs., Vacuum,

ins.

Speed on Trial

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

data:—

Builders' estimated I.H.P.

Revs. per min.

Estimated Speed



© 2021

Lloyd's Register
Foundation

TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets *One* Capacity of each *5500 K.W. (2600 Volts, 3 Phase)*Type of Turbines employed *Impulse Curtis.*Description of Generators *Direct driven Alternator of the horizontal revolving field non salient pole type, self ventilating*No. of Motors driving Propeller Shafting *One.*Are the Propeller Shafts driven direct by the Motors or through Gearing? *Direct.*Is Single or Double Reduction Gear employed? *None.*Description of Motor *Synchronous Motor. (forced air ventilated)*
The stator & armature are built of steel plates & each has a single winding

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 *3000.*" " Motors " *120.*" " 1st Reduction Shaft *—*" " 2nd " *—*" " Propellers at Full Power *120.*

Total Shaft Horse Power

6750/7000.

Date of Harbour Trial

14/6/30

" Trial Trip

*19/6/30*Trials run at *Skelmorlie. River Clyde.*

Speed on Trial

16.5

Knots.

Propeller Revs. per min. *116*

S.H.P.

6500

Makers of Turbines

British Thomson-Houston Co Ltd. Rugby.

" Generator

" Motor

" Reduction Gear

Turbine Spindles forged by

T. Firth Sons Ltd. Sheffield" Wheels forged ~~by~~ *T. Firth Sons Ltd***PROPELLER MOTOR**~~Reduction~~ Shafts forged by*W. Somers Ltd Birmingham*

" Wheels forged or cast by

ALTERNATOR ROTOR by T. Firth Sons Ltd Sheffield

DESCRIPTION OF INSTALLATION.

MAIN EQUIPMENT.

(i) One Turbo Alternator equipped with one air cooler & two oil coolers, one acting as a standby.

(ii) One Synchronous Motor equipped with one air cooler & one Keith Blackman ventilating fan unit.

(iii) One - 3 unit exciter set for supplying excitation to propeller motor & alternator.

TURBO ALTERNATOR

The turbine is of the horizontal Curtis impulse type having 9 stages with stainless steel blading & nozzle plates throughout. Steam gland packing of the segmental labyrinth type. A suitable governor is fitted which will maintain the speed constant at any pre-determined value down to 22% (P.T.O.) of full speed.

SHAFTING.

Are the Crank Shafts Built or Solid? ☒No. of Lengths in each ☒Diar. by Rule ☒Actual ☒Angle of Cranks ☒In Way of Webs ☒" of Crank Pins ☒Length between Webs ☒Greatest Width of Crank Webs ☒Thickness ☒Least " " ☒Diar. of Keys in Crank Webs ☒Length ☒" Dowels in Crank Pins ☒Length ☒Screwed or Plain ☒

No. of Bolts each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

PROPELLER MOTOR.

Distance from Nose of Main Bearings to Crank Web

Minimum Dia of shaft. 17"

Dia of Journal 17"

Type of Thrust Blocks

Michell

No. " Rings

One ahead & one astern

Diar. of Thrust Shafts at bottom of Collars

16 ³/₄"

No. of Collars

One

" " Forward Coupling

16"

At Aft Coupling

16"

Diar. of Intermediate Shafting by Rule

15-5"

Actual

15 ⁷/₈"

No. of Lengths

Five

No. of Bolts, each Coupling

8

Diar. at Mid Length

3 ¹/₂"

Diar. of Pitch Circle

24"

Diar. of Propeller Shafts by Rule

17"

Actual

17 ³/₄"

At Coupling =

16"

Are Propeller Shafts fitted with Continuous Brass Liners?

Yes

Diar. over Liners

19 ⁹/₁₆" and 19 ¹⁷/₃₂"

Length of After Bearings

4'-0"

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?

No

If so, what Type is adopted?

☒Description of Installation (continued).

An emergency overspeed governor is fitted.

The alternator is direct driven by means of a flexible claw coupling which also limits the end-play of the alternator shaft.

PROPELLER MOTOR.

This motor is of the synchronous type & is provided with a single stator & armature winding.

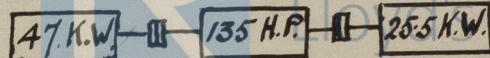
The bearings are of the pedestal type, white metal lined with automatic lubrication.

The motor is ventilated by means of a Keith Blackman centrifugal fan & the air is circulated through a cooler

EXCITER SET.— This three unit set provides current for the excitation of the 'field' for both the Propeller Motor & Alternator & consists of three machines arranged as shown below.

PROPELLER
MOTOR EXCITER.

MOTOR.

ALTERNATOR
EXCITER.

Register
Foundation

Propeller " "

Thrust Intermediates and
Propeller shafting.

[illegible]

PUMPS, ETC.

One Extraction Pump
 No. of Air Pumps *1 Main*
also one 3 stage air ejector
 Worked by Main or Independent Engines? *Independent*

No. of Circulating Pumps *1 Main*
1 aux. Diar. *5 3/4 x 8 1/2 (aux.)* Stroke *5 (aux.)*
 Type of *Main - Drysdale Elect. Aux. - Drysdale steam.*
 Diar. of *Suction from Sea Main 26" Aux. 12"*
 Has each Pump a Bilge Suction with Non-return Valve? *Main only* Diar. *18"*
 What other Pumps can circulate through Condenser? *Ballast.*

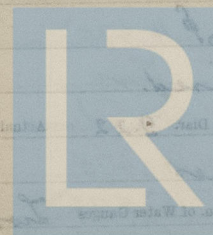
No. of Feed Pumps on Main Engine *5* Diar. *✓* Stroke *✓*
 Are Spring-loaded Relief Valves fitted to each Pump? *✓*
 Can one Pump be overhauled while the others are at work? *✓*
 No. of Independent Feed Pumps *2 Main*
1 aux. Diar. *11 1/2" Main* Stroke *24" Main*
6" aux. *18" aux.*
 What other Pumps can feed the Boilers? *None*

No. of Bilge Pumps on Main Engine *✓* Diar. *✓* Stroke *✓*
 Can one Pump be overhauled while the others are at work? *✓*
 No. of Independent Bilge Pumps *One*
 What other Pumps can draw from the Bilges? *General Services & Ballast 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? *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

No. of Boilers *2*
 Type *Vertical*
 Single or Double ended *Single*
 No. of Passes in each *2*
 Type of Furnace *Water-tube*
 Date when Plan approved *28/9/32*
 Approved Working Pressure *275 lb.*
 Hydraulic Test Pressure *400 lb.*
 Date of Hydraulic Test *I - 17/10/30 II - 24/10/30 III - 28/10/30*
 when Safety Valves set *10/11/30*
 Pressure at which Valves were set *280 lb.*
 Date of Accumulation Test *10/11/30*
 Maximum Pressure under Accumulation Test *285 lb.*
 System of Drafting *Forced draught (Steam assisted)*
 Can Boilers be worked separately? *Yes*
 Makers of Plates *British Iron Works & Steel Co. Ltd.*
 Date *1930*
 Rivets *British Iron Works & Steel Co. Ltd.*
 Furnaces *British Iron Works & Steel Co. Ltd.*
 Greatest Internal Diam. of Boilers *16'-0"*
 Length *12'-0"*
 Square Feet of Heating Surface each Boiler *1,000*
 No. of Safety Valves each Boiler *2*
 Date *1930*
 No. of Blow-off Valves each Boiler *2*
 Date *1930*
 No. of Water Cocks *2*
 Date *1930*
 Test Cocks *2*



© 2021

Lloyd's Register
Foundation

BOILERS

Works No. 967 I. II. III. IV. V.

No. of Boilers 5 Type Single ended circular return tube.

Single or Double-ended Single

No. of Furnaces in each Four

Type of Furnaces Leighton (Withdrawable)

Date when Plan approved 28/9/29

Approved Working Pressure 275 lbs.

Hydraulic Test Pressure 463 lbs.

Date of Hydraulic Test I-7/2/30. II-12/2/30. III-17/2/30. IV-24/2/30. V-28/2/30.

" when Safety Valves set 10/6/30

Pressure at which Valves were set 280 lbs.

Date of Accumulation Test 10/6/30

Maximum Pressure under Accumulation Test 283 lbs.

System of Draught Forced draught (Closed ashpit)

Can Boilers be worked separately? Yes

Makers of Plates David Colville & Sons Ltd., Glasgow.

" Stay Bars Earl of Dudley's Round Oak Works Ltd.

" Rivets British Bolt & Nut Co., Ltd., Glasgow.

" Furnaces Leighton Patent Flue & Tube Co., Ltd.

Greatest Internal Diam. of Boilers 16'-0"

" " Length " 12'-6"

Square Feet of Heating Surface each Boiler 3000

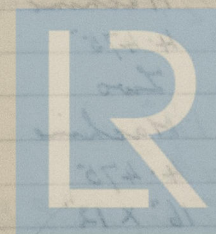
" " Grate " Oil fired.

No. of Safety Valves each Boiler Two Rule Diam. 2.22 Actual 2 1/4

Are the Safety Valves fitted with Easing Gear? Yes

No. of Pressure Gauges, each Boiler One No. of Water Gauges Two

" Test Cocks " " Salinometer Cocks One



© 2021

Lloyd's Register
Foundation

Thickness of End Plates in Steam Space Approved

 $\frac{7}{16}$ "

" " " " " in Boilers

 $\frac{7}{16}$ "

Pitch of Steam Space Stays

21" Horizontally by 16" Vertically.

Diar. " " " " Approved

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

Threads per Inch

6

" " " " " in Boilers

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

6.

Material of " " "

Steel

How are Stays Secured?

Nuts & washers inside & outside

Diar. and Thickness of Loose Washers on End Plates

7" Dia. by $\frac{1}{4}$ " thick.

" " Riveted " "

Width " " Doubling Strips

Thickness of Middle Back End Plates Approved

 $\frac{31}{32}$ "

" " " " " in Boilers

 $\frac{31}{32}$ "

Thickness of Doublings in Wide Spaces between Fireboxes

 $\frac{1}{32}$ " Fitted at the $\frac{1}{32}$ between each nest of tubes.

Pitch of Stays at

Diar. of Stays Approved

Threads per Inch

" " in Boilers

Material "

Are Stays fitted with Nuts outside?

Thickness of Back End Plates at Bottom Approved

 $\frac{31}{32}$ "

" " " " " in Boilers

 $\frac{31}{32}$ "

Pitch of Stays at Wide Spaces between Fireboxes

One stay fitted between each box.

Thickness of Doublings in

 $\frac{7}{8}$ "

Thickness of Front End Plates at Bottom Approved

 $\frac{1}{16}$ "

" " " " " in Boilers

 $\frac{1}{16}$ "

No. of Longitudinal Stays in Spaces between Furnaces

Three (One between each)



© 2021

Lloyd's Register
Foundation

Diar. of Stays Approved $3\frac{1}{8}"$ Threads per Inch 6
 in Boilers $3\frac{1}{8}"$ 6
 Material ,, Steel
 Thickness of Front Tube Plates Approved $1\frac{1}{16}"$
 in Boilers $1\frac{1}{16}"$
 Pitch of Stay Tubes at Spaces between Stacks of Tubes $14"$ Horizontally by $8\frac{1}{4}"$ Vertically
 Thickness of Doublings in $7\frac{1}{16}"$
 .. Stay Tubes at $7\frac{1}{16}"$
 Are Stay Tubes fitted with Nuts at Front End Yes
 Thickness of Back Tube Plates Approved $1"$
 in Boilers $1"$
 Pitch of Stay Tubes in Back Tube Plates $10\frac{3}{8}"$ Horizontally by $8\frac{1}{4}"$ Vertically
 .. Plain .. $4\frac{1}{4}"$ to $4\frac{1}{8}"$ to
 Thickness of Stay Tubes Margin Stay tubes generally $7\frac{1}{16}"$ thick
 7 Margin Stay tubes in centre boxes $\frac{1}{2}"$ thick
 Between Stay tubes $5\frac{1}{16}"$ thick
 .. Plain .. No 7 L.S. 6
 External Diar. of Tubes Plain tubes $3"$ External Dis. Swelled to $3\frac{1}{16}"$ at front end.
 Stay tubes $3"$ to $3\frac{1}{4}"$ at ends.
 Material ,, Iron
 Thickness of Furnace Plates Approved $3\frac{1}{4}"$
 in Boilers $3\frac{1}{4}"$
 Smallest outside Diar. of Furnaces $3'-4"$
 Length between Tube Plates $8'-2"$
 Width of Combustion Chambers (Front to Back) $3'-2"$ Mean
 Thickness of Tops Approved $\frac{23}{32}"$
 in Boilers $\frac{23}{32}"$
 Pitch of Screwed Stays in C.O. Tops $7\frac{1}{4}"$ Threadship & $7\frac{1}{8}"$ Fore and aft.



© 2021

Lloyd's Register
Foundation

Diam. of Screwed Stays Approved $1\frac{3}{4}$ " Threads per Inch 9
 " " " in Boilers $1\frac{3}{4}$ " 9
 Material " " Steel

Thickness of Combustion Chamber Sides Approved $\frac{23}{32}$ "
 " " " in Boilers $\frac{23}{32}$ "
 Pitch of Screwed Stays in C.C. Sides *In wings $9\frac{1}{8}$ " horizontally by $6\frac{1}{2}$ " vertically*
Between $7\frac{1}{8}$ " to $8\frac{1}{4}$ "
 Diam. " " Approved $1\frac{3}{4}$ " Threads per Inch 9
 " " " in Boilers $1\frac{3}{4}$ " 9
 Material " " Steel

Thickness of Combustion Chamber Backs Approved $\frac{23}{32}$ "
 " " " in Boilers $\frac{23}{32}$ "
 Pitch of Screwed Stays in C.C. Backs *8" by 8" Bent's Boxes 8" by 7" Wing boxes*
2 Top corner stays in each box 28"
 Diam. " " Approved *1" in $1\frac{1}{8}$ "* Threads per Inch 9
Between $1\frac{3}{4}$ "
 " " " in Boilers *do*
 Material " " Steel

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

Thickness of Combustion Chamber Bottoms $1\frac{1}{16}$ " *3/16" (Spencer wrapper)*

No. of Girders over each Wing Chamber *Four*
 " " " Centre " *Two*
 Depth and Thickness of Girders *Two plates $10\frac{5}{8}$ " by 3" thick.*
 Material of Girders *Steel*
 No. of Stays in each *Four*

No. of Tubes, each Boiler 366 *Including 120 Stay.*
 Size of Lower Manholes *16" x 12"*

VERTICAL DONKEY BOILERS

Type
 Height
 Height of Boiler Crown above the Girth
 Are Boiler Crown Flat or Dish'd?
 Internal Radius of Dish'd Crown
 Description of Stays in Boiler Crown
 Diam. of Rivet Heads
 Height of Rivet Crown above the Girth
 Are Rivet Crown Flat or Dish'd?
 External Radius of Dish'd Crown
 % of Crown Stays
 Diam.
 External Diam. of Rivet as Top
 Thickness of Plates
 No. of Water Tubes
 Material of Water Tubes
 Size of Manhole in Shell
 Dimensions of Compensation Ring
 Height between each boiler
 Class Surface

SUPERHEATERS



© 2021

Lloyd's Register
Foundation

MAIN STEAM PIPES.

No. of Lengths	One	One	One	Eight
Material	Solid drawn (bold) steel	-	-	-
Brazed, Welded or Seamless	Seamless	-	-	-
Internal Diam.	9"	8"	8"	5"
Thickness	3/0 L.S.G.	2/0 L.S.G.	2/0 L.S.G.	2 L.S.G.
How are Flanges secured?	Screwed with Vanishing thread	-	-	-
Date of Hydraulic Test	15 th /4/30	12 th /4/30	26 th /5/30	10 th /4/30
Test Pressure	825 lbs.	-	-	-

No. of Lengths	One	One	Five	Two
Material	Solid drawn (bold) steel	-	-	-
Brazed, Welded or Seamless	Seamless	-	-	-
Internal Diam.	5"	5"	5"	5"
Thickness	2 L.S.G.	2 L.S.G.	2 L.S.G.	2 L.S.G.
How are Flanges secured?	Screwed with Vanishing thread	-	-	-
Date of Hydraulic Test	11 th /4/30	15 th /4/30	16 th /4/30	26 th /4/30
Test Pressure	825 lbs.	-	-	-

No. of Lengths	Two	Two	Two	One
Material	Solid drawn (bold) steel	-	-	-
Brazed, Welded or Seamless	Seamless	-	-	-
Internal Diam.	5"	5"	5"	5"
Thickness	2 L.S.G.	2 L.S.G.	2 L.S.G.	2 L.S.G.
How are Flanges secured?	Screwed with Vanishing thread	-	-	-
Date of Hydraulic Test	17 th /5/30	3 rd /5/30	9 th /5/30	10 th /5/30
Test Pressure	825 lbs.	-	-	-

Two	Eight	Eight	Four	Three.
-	-	-	-	-
-	-	-	-	-
5"	4"	4"	4"	4"
2 L.S.G.	4 L.S.G.	4 L.S.G.	4 L.S.G.	4 L.S.G.
-	-	-	-	-
16 th /5/30	17 th /3/30	18 th /3/30	19 th /3/30	12 th /4/30
-	-	-	-	-
Three	Three	One	One	Two
-	-	-	-	-
-	-	-	-	-
4"	4"	4"	3"	3"
4 L.S.G.	4 L.S.G.	4 L.S.G.	5 L.S.G.	5 L.S.G.
-	-	-	-	-
14 th /4/30	15 th /4/30	16 th /4/30	24 th /4/30	26 th /4/30
-	-	-	-	-
Two	Two			
-	-			
-	-			
3"	3"			
5 L.S.G.	5 L.S.G.			
-	-			
22 nd /5/30	26 th /5/30			

© 2021

Lloyd's Register
Foundation

EVAPORATORS.

No. *One* Type *Pressure* Tons per Day *30*
 Makers *G. & J. Neilsen Ltd.*
 Working Pressure *25 lbs* Test Pressure *Shell 50 lbs Boils 50 lbs* Date of Test *27/12/29.*
 Date of Test of Safety Valves under Steam *16/6/30*

FEED WATER HEATERS.

No. *1* Type *Primary*
 Makers *G. & J. Neilsen Ltd.*
 Working Pressure *35 lbs* Test Pressure *Shell 70 lbs Tubes 60 lbs* Date of Test *27/2/30*

FEED WATER FILTERS.

No. *1* Type *Pressure* *To deal with Size 100,000 lbs of water per hour*
 Makers *Hocking & Co. Ltd.*
 Working Pressure *330 lbs* Test Pressure *825 lbs* Date of Test *30/1/30.*

Feed water Heater.

No. *1* Type *Secondary.*
 Makers *G. & J. Neilsen Ltd.*
 Working Pressure *75 lbs* Test Pressure *Shell 150 Boils 600* Date of Test *27/2/30.*

LIST OF DONKEY PUMPS.

Description	Maker	Size.
General Service	Neilsen	9" x 9" x 18"
Main Feed (Two)	Do	17" x 11 1/2" x 24"
Aux. Feed.	Do	9 1/2" x 6" x 18"
Oil Fuel Trans.	Do	8" x 9" x 18"
Bilge Bilge.	Do	3 1/2" x 4" x 9"
Bilge Ballast	Drysdale	6" Discharge
Sanding Fine.	Do	5" Do.



© 2021

Lloyd's Register
Foundation

SPARE GEAR

No. of Top End Bolts.	✓	No. of Bot. End Bolts.	✓	No. of Cylinder Cover Studs	✓
" Coupling Bolts	18	" Main Bearing Bolts	✓	" Valve Chest "	✓
" Junk Ring Bolts	✓	" Feed Pump Valves	✓	" Bilge Pump Valves	✓
" H.P. Piston Rings	✓	" L.P. Piston Rings	✓	" L.P. Piston Rings	✓
" " Springs	✓	" " Springs	✓	" " Springs	✓
" Safety Valve	3 Main 3 Supplemental	" Fire Bars	✓	" Feed Check Valves	4 Main 1 Aux.
" Piston Rods	✓	" Connecting Rods	✓	" Valve Spindles	1 Main
" Air Pump Rods	✓	" Air Pump Buckets	✓	" Air Pump Valves	
" Cir. <i>one infiller shaft</i>		" Cir. <i>one infiller</i>		" Cir. "	✓
" Crank Shafts	✓	" Crank Pin Bushes	✓	" Crosshead Bushes	✓
" Propeller Shafts	One	" Propellers	✓	" Propeller Blades	Two
" Boiler Tubes	50	" Condenser Tubes	100 Main. 50 Aux.	" Condenser Ferrules	200 Main. 100 Aux.

OTHER ARTICLES OF SPARE GEAR:—

Turbo Alternator Set.

One complete thrust bearing. One governor and turbine bearing. One center turbine bearing. One center alternator bearing and one alternator end (aft) bearing complete with friction collar. Two of each size of governor springs. One armature. 51. Oil cooler tubes.

One pole of rotor winding with insulating material for alternator.

Two alternator brush holders.

One sixth number of stator coils for alternator.

Propeller Motor.

Two bearing bushes complete with oil rings.

One rotor field coil (Left hand) & one (Right hand).

12 Slipring brushes (complete set) with springs.

Line slipring brush boxes.Alternator and Motor Air Coolers.

20 Tubes for each cooler with 40 Ferrules.

Motor Driven oil pump.

One cast iron body liner.

One each cast iron inner and outer rotors.

One mild steel shaft. One armature.

One set of carbon brushes with holder & springs.

One armature, one field coil, brush holder etc for Ventilating fan motor, Propeller Motor Exciter.

Alternator Exciter and Motor driving set.

Six main thrust pads.

Four main feed check valves.

One complete set of turbine gland packing for main glands.

Six tubes for Primary & 6 For Secondary Heater.

One set of nozzle holder & nozzles for Main Air ejectors (Condenser).

One steam valve check for Main feed pump.

Two group auction valve seats & valves for F.P.

Two to delivery to the boiler.

One set of Piston & bucket rings for feed pump.

8 Burners complete with atomizer & tips, also

4 sets of burner tips for oil fuel installation.

Various bolts & studs as called for in the Rules

Etc.

REFRIGERATORS.

No. of Machines *Two* Capacity of each *Hall's No 16*
 Makers *J. & E. Hall Ltd.*
 Description *Vertical, single acting, totally enclosed, marine type CO₂ machines, having 4 forged steel compressors, direct coupled to a 203 B.H.P. motor.*
 No. of Steam Cylinders, each Machine ☒ No. of Compressors *4* No. of Cranks *4*

Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines

or Independently *Two circulating water pumps and three brine pumps. Two vertical Electrically driven pumps.*

System of Refrigeration *Brine with air circulation*

Insulation *Granulated cork.*

Are Brine and other Regulating Valves placed so as to be accessible without entering the Insulated

Spaces? *Yes*

Are all Pipes, Air Trunks, &c., well secured and protected from risk of damage? *Yes*

Are all Bilge, Sounding and Air Pipes in Insulated Spaces properly insulated? *Yes*

Are Thermometer Tubes so arranged that Water cannot enter and freeze in them? *Yes*

Date of Test under Working Conditions *15th & 16th June 1930*

RESULTS OF TRIALS.

COMPARTMENT.	Temp. at beginning of Trial.	Temp. at end of Trial.	Time required to obtain this Result.	Rise of Temp. after 24 hours.
<i>Forward.</i>				
Bridge Tween Deck	66°	6° 9.5		28° 23°
Upper " "	66°	3° 5°		18° 16°
Lower " "	65°	3.5° 7.5°		17° 11.5°
Hold.	64°	6° 9°		21° 17°
<i>Aft.</i>				
Bridge Tween Deck	66°	7.5° 2.5°		16° 31.5°
Upper " "	65°	2° -2°		15.5° 21.5°
Lower " "	64°	2.5° 1.5°		23.5° 24°
<i>Special Cargo Rooms.</i>				
No 1.	68°	4°		22°
No 2.	68°	6°		25°

Articles of Spare Gear for Refrigerating Plant carried on board:—

- 1 Compressor complete with valves.
- 4 Compressor pistons & rods.
- 8 Compressor suction & 8 delivery valves seats & springs
- 12 Sets of rings for compressor gland packing.
- 12 Sets of cast iron rings for compressor pistons.
- 1 Pair of main bearing bushes & bolts
- 1 Pair of crank pin bushes & bolts
- 1 Pair crosshead bushes and bolts.

- Blocks for making all leather packing.
 24 Lubricator piston leathers of each size.
 24 Lubricator gland leathers
 2 Hand pumps for pressure lubricator.
 12 suction & 12 delivery valves for lubricator pumps.
 1 Pump for oil circulation.
 6 Brass cases & 24 chamber thermometers.
 8 Sets of copper joint rings for all joints.
 2 C.O.² gauges.
 6 Spindles with pits for CO² valves.
 1 Pair CO² flanges for each size of pipe
 1 Set of spare parts for flexible couplings.
 1 Regulator spindle.
 2 CO² Slip valve spindles with valves for compressors.
 2 CO² Valves complete.
 A supply of assorted bolts, nuts, studs packing & joint rings.
 1 Armature for main machine.
 1 pair of blaring brushes for main machine.
 1 field and 1 interpole coils
 1 Armature for brine pump motor
 1 Armature for fan motor
 1 each field and interpole coils for brine & fan motor
 together with various other electrical spare parts.
 4 - 40 lb bottles of CO² gas
 4 - 52 lb drums of calcium chloride slits

ELECTRIC LIGHTING.

Installation Fitted by *Sunderland Forge & Engineering Co. Ltd.*
 No. and Description of Dynamos *2-500 K.W. Geared turbo generators*
1-175 K.W.
 Makers of Dynamos *British Thomson Houston Co. Ltd., Rugby*
 Capacity *2-500 K.W.* Amperes, *2 at 2270* Volts, *220* Revols. per Min. *1 at 670*
1-175 " " 1 at 795
 Current Alternating or Continuous *Continuous*
 Single or Double Wire System *Single*
 Position of Dynamos *2-500 K.W. on flat Port side Engine Room.*
1-175 K.W. on flat Star side Engine Room.
 Main Switch Board *on flat at after end of engine Room.*
 No. of Circuits to which Switches are provided on Main Switch Board *43, 6 lighting*
37 power.
 Particulars of these Circuits:— (Lighting)

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
Officers Accom.	30		10.0	7/0.044	1000		
Accommodation lights	260		91	19/0.064	1516		
Hold lighting	64		57	19/0.052	1425		
Cargo do	14		21.8	7/0.044	2180		
Eng. Room do	87		47.2	2-7/0.044	2360		
Emergency Switch			58.7	19/0.052	1468.		
Feed.							

2500 Megohms.

Total No. of Lights *455* No. of Motors driving Fans, &c. *58* No. of Heaters
 Current required for Motors and Heaters *5834 Amps.* Total lighting & power.

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

Emergency Dynamo Switch Board 4 Switches

Navigation

Accommodation

Engine Room

w/7 Installation

Are Cut-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits

Yes

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

Are all Switches and Cut-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. *1/25* S.W.G.

How are Conductors in Engine and Boiler Spaces protected? *Lead covered Armoured & Braided*

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

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp *Lead covered armoured & braided*

(2) " " passing through Bunkers or Cargo Spaces *Lead covered armoured & braided.*

(3) " " Deck Beams or Bulkheads *Bushed with fibre.*

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?

3.1

meg

Ohms.

Is the Installation supplied with a Voltmeter?

Yes

" " " an Ampere Meter

Yes

Date of Trial of complete Installation *18/6/30*

Duration of Trial

12 Hours.

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



© 2021

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. *Yes*

Are the Materials used in the Construction of Engines and Boilers, so far as could be seen, sound and

trustworthy

Is the Workmanship throughout thoroughly satisfactory? *Yes*

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

as ascertained by ^{us} from personal examination

Bryan Hodgson.
H. Burch.

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

Fees—

MAIN BOILERS.		£	s.	d.
H.S.	<i>15,000</i> Sq. ft.	:	:	
G.S.	<i>✓</i> "	:	:	
DONKEY BOILERS.				
H.S.	<i>✓</i> Sq. ft.	:	:	
G.S.	<i>✓</i> "	:	:	
		£	:	:
ENGINES.				
L.P.C.	Cub. ft.	:	:	
		£	:	:
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 *6th* August, 1930.

Fees advised

Fees paid



W. H. King
Secretary
Lloyd's Register
Foundation

© 2021

Lloyd's Register
Foundation



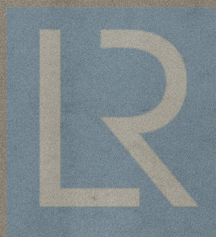
© 2021

Lloyd's Register
Foundation



© 2021

Lloyd's Register
Foundation



© 2021

Lloyd's Register
Foundation