

REPORT ON MACHINERY.

No. 3100

Received at London Office

of writing Report April 30th 1921 When handed in at Local Office May 2nd 1921 Port of Baltimore Md
 in Survey held at Baltimore Md Date, First Survey June 4th 1920 Last Survey March 26th 1921
 g. Book. on the Single Screw Steamer Agwipond (Number of Visits 25) Tons 8024.91
 Built at Sparrows pt Md By whom built Bethlehem S.B. Corporation When built 1921
 Engines made at Sparrows pt Md By whom made Bethlehem S.B. Corporation when made 1921
 Makers made at " By whom made " when made 1921
 Registered Horse Power 636 Owners Atlantic Gulf & West Indies S.S. Co Port belonging to New York
 m. Horse Power as per Section 28 636 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes

GINES, &c.—Description of Engines Quadruple No. of Cylinders 4 No. of Cranks 4
 a. of Cylinders 25-35-51-75 Length of Stroke 51 Revs. per minute 70 Dia. of Screw shaft 15-22 Material of Steel
 the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight
 the propeller boss yes If the liner is in more than one length are the joints burned Continuous If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two
 ers are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 5' 4 3/4"
 a. of Tunnel shaft 13-3 Dia. of Crank shaft journals 13-98 Dia. of Crank pin 15" Size of Crank webs 11 1/2" Dia. of thrust shaft under
 lars 14 3/4" Dia. of screw 19' 0" Pitch of Screw 16' 0" No. of Blades 4 State whether moveable yes Total surface
 of Feed pumps 2 Diameter of ditto 12x8" Stroke 24" Can one be overhauled while the other is at work yes
 of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work yes
 of Donkey Engines 1 Sizes of Pumps 16x10x14" No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 7 2 1/2-3" 3 1/2-4" In Holds, &c. As per bilge Pumping plans

of Bilge Injections 1 sizes 12 Connected to condenser, or to circulating pump Circ Pump Is a separate Donkey Suction fitted in Engine room & size
 all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above
 they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes
 at pipes are carried through the bunkers none How are they protected yes
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes non return valves fitted
 the Screw Shaft Tunnel watertight mach. aft. Is it fitted with a watertight door yes worked from yes

ILERS, &c.—(Letter for record S) Manufacturers of Steel Lukens Steel Co

al Heating Surface of Boilers 9315 Is Forced Draft fitted yes No. and Description of Boilers 3 Single end Scotch
 rking Pressure 220 Tested by hydraulic pressure to 330 Date of test ? No. of Certificate ?
 n each boiler be worked separately yes Area of fire grate in each boiler ? No. and Description of Safety Valves to
 h boiler Levin 3 1/2" Area of each valve 9.62 Pressure to which they are adjusted 220 Are they fitted with easing gear yes
 allest distance between boilers or uptakes and bunkers or woodwork yes Mean dia. of boilers 15' 3" Length 11' 3 1/2" Material of shell plates Steel
 ickness 1 1/2" Range of tensile strength 60,000-65,000 Are the shell plates welded or flanged flanged Descrip. of riveting: cir. seams double
 g. seams triple Diameter of rivet holes in long. seams 1 9/16 Pitch of rivets 9 3/8 Lap of plates or width of butt straps 22 3/8
 r centages of strength of longitudinal joint 90% Working pressure of shell by rules 240 Size of manhole in shell 12x16
 e of compensating ring 32 1/2 x 38 x 1 1/2" No. and Description of Furnaces in each boiler 3 Morrison Material S Outside diameter 4' 0 1/2"
 ngth of plain part 8 1/2" Thickness of plates 1 1/16 Description of longitudinal joint welded No. of strengthening rings 1 plan
 rking pressure of furnace by the rules 229 Combustion chamber plates: Material S Thickness: Sides 7/16 Back 7/16 Top 1 1/16 Bottom 1 5/16
 tch of stays to ditto: Sides 6 3/4 x 7 1/2 Back 7 3/2 x 7 1/2 Top 6 3/4 x 8 If stays are fitted with nuts or riveted heads Riveted Working pressure by rules 299
 aterial of stays Steel Area at smallest part 2.06 Area supported by each stay 33.469 Working pressure by rules 289 End plates in steam space:
 aterial Steel Thickness 1 1/8 Pitch of stays 7 3/8 How are stays secured nuts both sides Working pressure by rules 289 Material of stays Steel
 rea at smallest part 2 7/8 Area supported by each stay 15 x 16 1/2 Working pressure by rules 289 Material of Front plates at bottom Steel
 ickness 1 5/16 Material of Lower back plate Steel Thickness 1 3/16 Greatest pitch of stays 7 7/8 Working pressure of plate by rules 318
 iameter of tubes 2 1/2 Pitch of tubes 3 1/2 x 3 3/4 Material of tube plates Steel Thickness: Front 1 5/16 Back 3/4 Mean pitch of stays 6 1/2 x 7 1/4
 itch across wide water spaces 7 1/4 Working pressures by rules 327 Girders to Chamber tops: Material Steel Depth and
 ickness of girder at centre 9" Length as per rule 3' 1" Distance apart 6 1/2-7 1/2 Number and pitch of stays in each 4 @ 7"
 rking pressure by rules 266 Steam dome: description of joint to shell yes % of strength of joint yes
 iameter yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes
 itch of rivets yes Working pressure of shell by rules yes Crown plates yes Thickness yes How stayed yes
 PERHEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
 ate of Test yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
 iameter of Safety Valve yes Pressure to which each is adjusted yes Is Easing Gear fitted yes

W157-0153

IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied:—1 Crank complete. 1 Tail shaft. 2 propeller blades. 2 Top end brasses & bolts & nuts. 1 set Crank pin brasses with bolts & nuts. 2 main bearing bolts & nuts. 1 set of coupling bolts. 1 piston rod. 2 Spring rings each H.P. & I.P. pistons. 1 Spring ring for I.P. piston. 1 Valve link block. 12 Cylinder covers & 12 Steam chest studs & nuts. 1 set of valves & guards for air pump. 1 set valves for bilge pump. 1 set of valves & springs for each independent pump. Quantity of assorted studs nuts & bolts bars & plates of iron

The foregoing is a correct description,
BETHLEHEM SHIPBUILDING CORP., LTD.
SPARROWS POINT PLANT

Geo. H. Hutton

Manufacturer.

GENERAL MANAGER

Dates of Survey while building { During progress of work in shops -- *June 4th 14. Aug. 6. 23. 28. Sept. 20. 21. Oct. 6-8. 12. 18. Nov. 8. 12. 16. 23. Dec. 30 1920*
During erection on board vessel --- *Feb. 23. 25. 28. March, 8. 10. 13. 17. 23. 26 1921*
Total No. of visits *Twenty nine*

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *Nov. 23* Slides *Nov. 23* Covers *Nov. 16* Pistons *Nov. 16* Rods *Nov. 16*

Connecting rods *Nov. 23* Crank shaft *Oct. 18th* Thrust shaft *Oct. 18* Tunnel shafts *Nov. 8* Screw shaft *Oct. 6th* Propeller *Oct. 6*

Stern tube *Oct. 8th* Steam pipes tested *Mar. 19th* Engine and boiler seatings *Feb. 15th* Engines holding down bolts *Mar. 8th*

Completion of pumping arrangements *Mar. 20th* Boilers fixed *February 1921* Engines tried under steam *Mar. 26*

Completion of fitting sea connections *Feb. 14th* Stern tube *Feb. 17th 1921* Screw shaft and propeller *Feb. 15th*

Main boiler safety valves adjusted *March 23rd* Thickness of adjusting washers

Material of Crank shaft *Steel* Identification Mark on Do. *W.C.* Material of Thrust shaft *Steel* Identification Mark on Do. *W.C.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *W.C.* Material of Screw shafts *Steel* Identification Marks on Do. *W.C.*

Material of Steam Pipes *Lap welded steel* Test pressure *440 lbs*

Is an installation fitted for burning oil fuel *yes* Is the flash point of the oil to be used over 150°F. *yes*

Have the requirements of Section 49 of the Rules been complied with *yes*

Is this machinery duplicate of a previous case *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

Boilers and machinery have been built under special Survey from approved plans and from tested material. Workmanship and material are good. Boilers and machinery have been tried out under steam pressure and found to work in a satisfactory manner. The machinery in this vessel is eligible in my opinion to have notation in the register book *L.M.C. 4. 21. Electric light. forced draught fitted for the burning of oil fuel*

It is submitted that
this vessel is eligible for
THE RECORD. *+ L.M.C. 4. 21. F.D. C.L.*
fitted for Oil Fuel *4. 21 F.P. above 150°F*
220 lb 125 lb.

Rock 30/6/21
GRK

The amount of Entry Fee ... £ *30. 00* : When applied for,

Included in Special Survey ... *\$559. 00* : *April 5th 1921*

Donkey Boiler Fee ... *\$20. 00* : When received,

Electric Installation ... *\$350. 00* : *9. 11. 1921*

Travelling Expenses (if any) *\$20. 00* :

Committee's Minute *New York MAY 10 1921*

Assigned *+ L.M.C. 4. 21*

MACHINERY CERT
WRITTEN

23. 5. 21
issued 15. 6. 21

L. Roseworthy
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation