

REPORT ON MACHINERY.

No. 21931

MON. SEP. 4 1922

Date of writing Report *28 July 22* When handed in at Local Office *19* Port of *New York N.Y.*
 No. in Survey held at *Newport News + New York* Date, First Survey *July 26 1922*
 Reg. Book. on the *Steel Screw Steamer "ELLENOR" Ex MASON CITY* (Number of Visits *2*)
 Master *Birmingham* Built at *Birmingham* By whom built *Bethlehem Shipbuilding Corp.* Tons { Gross *3482*
 Engines made at *Birmingham Del* By whom made *Bethlehem S. B. Corp.* when made *1920*
 Boilers made at *"* By whom made *"* when made *1920*
 Registered Horse Power *292* Owners *A. H. Bull Heo.* Port belonging to *Birmingham*
 Nom. Horse Power as per Section 28 *292* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines *Triple Expansion Reciprocating* No. of Cylinders *3* No. of Cranks *3*
 Dia. of Cylinders *22.37 1/2 - 60"* Length of Stroke *42* Revs. per minute *129* Dia. of Screw shaft *13.1* Material of *S*
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No* Is the after end of the liner made water tight
 in the propeller boss *Yes* If the liner is in more than one length are the joints burned *No* 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
 liners are fitted, is the shaft lapped or protected between the liners *3 liners with half lap joint* Length of stern bush *51"*
 Dia. of Tunnel shaft *11.5* Dia. of Crank shaft journals *11.4* Dia. of Crank pin *12.25* Size of Crank webs *24 1/2 x 8 1/4* Dia. of thrust shaft under
 collars *12.25* Dia. of screw *16.3* Pitch of Screw *15.5* No. of Blades *4* State whether moveable *Yes* Total surface
 No. of Feed pumps *2 attached* Diameter of ditto *3 3/4"* Stroke *13"* Can one be overhauled while the other is at work *Yes*
 No. of Bilge pumps *2 attached* Diameter of ditto *4"* Stroke *13"* Can one be overhauled while the other is at work *Yes*
 No. of Donkey Engines *3* Sizes of Pumps *1 1/4 x 10 1/2 x 12"* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *4-3"* In Holds, &c. *2-3" in No. 1, 2-3" in No. 2, 2-3" in No. 3*
 3-1-3" Tunnel well
 No. of Bilge Injections *1* sizes *8"* Connected to condenser, or to circulating pump *Yes* a separate Donkey Suction fitted in Engine room & size *10"*
 Are 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 *None*
 Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Both*
 Are 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 *Both*
 Are 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*
 What pipes are carried through the bunkers How are they protected
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*
 Is the Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *Engine Room Top Platform*

BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *Bethlehem Shipbuilding Corp. (Sparrows Point)*
 Total Heating Surface of Boilers *4933.12 sq ft* Forced Draft fitted *No* No. and Description of Boilers *2 Single ended Scotch*
 Working Pressure *190* Tested by hydraulic pressure to *285* Date of test *29/6/22* No. of Certificate
 Can each boiler be worked separately *Yes* Area of fire grate in each boiler *71.825 sq ft* No. and Description of Safety Valves to
 each boiler *2 Spring loaded* Area of each valve *7.068 sq ft* Pressure to which they are adjusted *190* Are they fitted with easing gear *Yes*
 Smallest distance between boilers or uptakes and bunkers or woodwork *15"* Mean dia. of boilers *15.1 1/8"* Length *11-3 1/4"* Material of shell plates *S*
 Thickness *29/64* Range of tensile strength *60000 lbs* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *D.R.L.*
 long. seams *TR.DBS.* Diameter of rivet holes in long. seams *1 9/16"* Pitch of rivets *10 1/4", 5 1/8"* Lap of plates or width of butt straps *22 1/4"*
 Per centages of strength of longitudinal joint *95%* Working pressure of shell by rules *209* Size of manhole in shell *23" x 19"*
 Size of compensating ring *38 x 34 x 1 29/64* No. and Description of Furnaces in each boiler *3 Horizontal* Material *S* Outside diameter *50 1/8"*
 Length of plain part *5* Thickness of plates *5/8"* Description of longitudinal joint *Welded* No. of strengthening rings *1*
 Working pressure of furnace by the rules *200* Combustion chamber plates: Material *S* Thickness: Sides *5/8"* Back *1/2"* Top *5/8"* Bottom *7/8"*
 Pitch of stays to ditto: Sides *7" x 7 1/4"* Back *7 3/4" x 7 1/8"* Top *7 1/4" x 7 1/8"* If stays are fitted with nuts or riveted heads *Yes* Working pressure by rules *193*
 Material of stays *S* Area at smallest part *1.52 sq ft* Area supported by each stay *54.4 sq ft* Working pressure by rules *223* End plates in steam space:
 Material *S* Thickness *1"* Pitch of stays *15 1/4" x 15 1/4"* How are stays secured *By nuts & washers* Working pressure by rules *193* Material of stays *S*
 Area at smallest part *5.41 sq ft* Area supported by each stay *232.5 sq ft* Working pressure by rules *242* Material of Front plates at bottom *S*
 Thickness *3/4" & 3/4" Double* Material of Lower back plate *S* Thickness *3/4" & 1 1/4" Double* Greatest pitch of stays *15" x 16"* Working pressure of plate by rules *249*
 Diameter of tubes *3"* Pitch of tubes *4 1/2" x 4 1/4"* Material of tube plates *S* Thickness: Front *3/4" & Double* Back *1 1/16"* Mean pitch of stays *9"*
 Pitch across wide water spaces *13 1/2"* Working pressures by rules *248* Girders to Chamber tops: Material *S* Depth and
 thickness of girder at centre *9" x 13 1/4"* Length as per rule *33* Distance apart *7 1/8"* Number and pitch of stays in each *3 @ 7 3/4"*
 Working pressure by rules *237* Steam dome: description of joint to shell *Yes* % of strength of joint
 Diameter *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓*
 Pitch of rivets *✓* Working pressure of shell by rules *✓* Crown plates *✓* Thickness *✓* How stayed *✓*
 SUPERHEATER. Type *✓* Date of Approval of Plan *✓* Tested by Hydraulic Pressure to *✓*
 Date of Test *✓* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *✓*
 Diameter of Safety Valve *✓* Pressure to which each is adjusted *✓* Is Easing Gear fitted *✓*

003971-003979-0011

9/9/22

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. *State the articles supplied:—*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	{	During progress of	}
		work in shops - -	
		During erection on	
		board vessel - -	
		Total No. of visits	

Is the approved plan of main boiler forwarded herewith

” ” ” *donkey* ” ”

Dates of Examination of principal parts—Cylinders			Slides	Covers	Pistons	Rods
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller	

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts

Completion of pumping arrangements	Boilers fixed	Engines tried under steam
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Completion of fitting sea connections Stern tube Screw shaft and propeller

<i>Main boiler safety valves adjusted</i>	<i>Thickness of adjusting washers</i>
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Material of Crank shaft	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.
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<i>Material of Tunnel shafts</i>	<i>Identification Marks on Do.</i>	<i>Material of Screw shafts</i>	<i>Identification Marks on Do.</i>
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Material of Steam Pipes	Test pressure
Cast iron	100 lb. per sq. in.
Wrought iron	150 lb. per sq. in.
Steel	200 lb. per sq. in.

Is an installation fitted for burning oil fuel

Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with.

Is this machinery duplicate of a previous case

If so, state name of vessel

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

Certificate (if required) to be sent to

The amount of Entry Fee ... \$500.00:

Special £ :

Donkey Boiler Fee ... £ :

Travelling Expenses, (if any) £ :

When applied for,

When received,

J. Hudson.
Engl.

Geo. Lully

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

New York, AUG 22 1922

Assigned

See attached Ref. NN 3610

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Lloyd's Register
Foundation