

# REPORT ON MACHINERY.

No. 21931

MON. SEP. 4 1922

Date of writing Report 28<sup>th</sup> 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<sup>th</sup> 1922  
 Reg. Book. on the Steel Screw Steamer "ELLENOR" EX MASON CITY Last Survey July 26<sup>th</sup> 1922  
 (Number of Visits 2) Tons } Gross 3482  
 Net 2112  
 Master Birmingham Built at Birmingham By whom built Bethlehem Shipbuilding Corp. When built 1920  
 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 A. H. Bull Heo. Owners " 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 as per rule 12.9 Material of S  
 Dia. of Screw shaft as fitted 13 screw shaft) as per rule 12.9  
 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 as per rule 11.23 11.4" Dia. of Crank shaft journals as per rule 11.79 11.97" 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 8 1/4 x 10 1/2 x 12" 1 10 x 10 1/2 x 12"  
 In Engine Room 4-3" In Holds, &c. 2-3" in No. 1, 2-3" in No. 2, 2-3" No.  
 No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump See Pump 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 71.875 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 about 15" Mean dia. of boilers 15'-1 3/8" Length 11-3 1/2" 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. D.B.S. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 1/2", 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 top 5" Thickness of plates bottom 5/8" Description of longitudinal joint welded No. of strengthening rings Yes  
 Working pressure of furnace by the rules 200 Combustion chamber plates: Material S Thickness: Sides 5/8" Back 1/16" Top 5/8" Bottom 7/8"  
 Pitch of stays to ditto: Sides 7" x 7 1/4" Back 7 3/4" x 7 1/2" 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 11 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 " % of strength of joint "  
 Diameter Yes Thickness of shell plates " Material " Description of longitudinal joint " Diam. of rivet holes "  
 Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates " Thickness " How stayed Yes

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 "

100-216300-0011

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

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

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

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

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.)

The amount of Entry Fee ... \$500.00 :  
Special ... £ :  
Donkey Boiler Fee ... £ :  
Travelling Expenses, (if any) £ :  
When applied for, AUG 25 1922  
When received, 15/9/22

*G. Hudson*

*Geo. Tully*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York, AUG 22 1922

Assigned See attached Rept. No. 3610



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Certificate (if required) to be sent to  
The Surveyors are requested not to write on or below the space for Committee's Minute.