

Date of writing Report April 5th 1917. When handed in at Local Office 19 Port of Baltimore Md.
No. in Survey held at Sparrows Point Md. Date, First Survey May 11th 1916 Last Survey March 26th 1917
Reg. Book. on the Union Iron Works "James H. B. Lee"
Master G. Haines Built at Sparrows Point By whom built Bethlehem Steel Co. Maryland Shipbuilding Plant
Engines made at Sparrows Point By whom made Bethlehem Steel Co. when made 1917
Boilers made at " By whom made " when made 1917
Registered Horse Power Owners Standard Oil Co. 16 Port belonging to Bayonne, N.J.
Nom. Horse Power as per Section 28 652 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Twin Screw Triple Expansion Refrigerating No. of Cylinders 6 No. of Cranks 6
Dia. of Cylinders 20 1/2" - 30" - 60" - 29" Length of Stroke 42" Revs. per minute 84 Dia. of Screw shaft as per rule 12" - 12" Material of screw shaft as fitted 18" steel
Is 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 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 Yes Length of stern bush 12" - 12"
Dia. of Tunnel shaft as per rule 11" - 11" Dia. of Crank shaft journals as per rule 11" - 11" Dia. of Crank pin 2 1/2" Size of Crank webs 24" x 8 1/2" Dia. of thrust shaft under collars 12" - 12" Dia. of screw 15" - 15" Pitch of Screw 14" - 14" No. of Blades 4 State whether moveable Yes Total surface 66 sq ft
No. of Feed pumps 2 Diameter of ditto 11" - 11" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 6" - 6" Stroke 16" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 11 Sizes of Pumps 2 1/2" - 2 1/2" and 2 1/2" - 2 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2 1/2" Bilge Room 2 1/2" 42" - 2" Engine Room In Holds, &c. In 1st Hold - 2" - 3" and cargo tank suction
No. of Bilge Injections 2 sizes Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size 1" - 1"
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 Yes
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 None How are they protected Yes
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
Dates of examination of completion of fitting of Sea Connections 2nd Feb 1917 of Stern Tube 30 Jan 1917 Screw shaft and Propeller 2nd Feb 1917
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record 3.) Manufacturers of Steel Both Bm.
Total Heating Surface of Boilers 9124.5 Is Forced Draft fitted Yes No. and Description of Boilers 2 Multitubular
Working Pressure 200 lbs Tested by hydraulic pressure to 300 Date of test 2 1/2 Feb 1917 No. of Certificate 555
Can each boiler be worked separately Yes Area of fire grate in each boiler 70 sq ft No. and Description of Safety Valves to each boiler 2 Direct Spring Loaded Area of each valve 4 sq in Pressure to which they are adjusted 200 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 14 woodwork Mean dia. of boilers 15" - 9" Length 11" - 7" Material of shell plates Steel
Thickness 1 1/2" Range of tensile strength 26.5 - 32 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams R. P. Lat long. seams Triple Butted Butt Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 4 1/2" - 4 1/2" Lap of plates or width of butt straps 15" - 4 1/2"
Per centages of strength of longitudinal joint rivets 88.5% plate 88.1% Working pressure of shell by rules 219.5 lbs Size of manhole in shell 16" x 12"
Size of compensating ring 34" x 30" Flanged No. and Description of Furnaces in each boiler 4 Harrison Material Steel Outside diameter 44 1/2"
Length of plain part top Thickness of plates crown 9/32" Description of longitudinal joint Ruled No. of strengthening rings 1
bottom Thickness of plates bottom 9/32" Working pressure of furnace by the rules 218.6 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 7/8"
Pitch of stays to ditto: Sides 7 1/2" x 7" Back 7 1/2" x 7" Top 7 1/2" x 7" If stays are fitted with nuts or riveted heads Both Working pressure by rules 211.8
Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 51.69 sq in Working pressure by rules 218.7 End plates in steam space: Material Steel Thickness 1" Pitch of stays 12" - 12" How are stays secured Both nuts Working pressure by rules 220.3 1/2 Material of stays Steel
Diameter at smallest part 1 1/2" Area supported by each stay 21.03 sq in Working pressure by rules 201.5 Material of Front plates at bottom Steel
Thickness 1 1/2" Material of Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 15" - 11" Working pressure of plate by rules 262
Diameter of tubes 2 1/2" Pitch of tubes 12" x 3 1/4" Material of tube plates Steel Thickness: Front 1/4" - 1/4" Back 1/4" - 1/4" Mean pitch of stays 7 1/2" x 7 1/2"
Pitch across wide water spaces 13 1/2" Working pressure by rules 208.5 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 1/4" x 1 3/4" Length as per rule 500 Distance apart 7 1/2" Number and pitch of stays in each 4 - 7"
Working pressure by rules 217 1/2 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes
If stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes
Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

IS A DONKEY BOILER FITTED?

Yes.

If so, is a report now forwarded?

Yes.

SPARE GEAR.

State the articles supplied: - 2 Connecting rods. 1st end bolts and nuts - 2 Connecting rods bottom end bolts and nuts - 2 main bearing bolts and nuts - 1 set of crushing bolts: 1 set of feed and bilge pump valves 1 set of piston rings each cylinder - a quantity of assorted bolts and nuts - Iron of various sizes - Length of crank shaft, 1 Tail shaft - 1 Propeller boss and 4 blades - Connecting rod top and bottom end brasses. Spare parts for donkey engines - main and donkey boiler tubes, condenser tubes and fittings etc.

The foregoing is a correct description,

BETHLEHEM STEEL COMPANY

MARYLAND SHIPBUILDING PLANT

Manufacturer.

Dates of Survey while building

During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits 54

May 11, 15, 18, 20, 23, 31 June 3, 27 July 13, 16, 21, 23, 27 Aug 1, 10, 12, 14, 16, 23 Sept 2, 5, 11 Oct 9, 12, 20 Nov 6, 9, 14, 17, 21, 24, 27, 29 Dec 5, 12, 16, 22

January 5, 18, 24, 26, 30 Feb. 2, 7, 16, 23, 27 March 2, 13, 16, 26

Is the approved plan of main boiler forwarded herewith?

Returned for Duplicate

Dates of Examination of principal parts -

Cylinders P. 24/1/17 S. 24/1/17 Slides S. 24/1/17 Covers P+S. 24/1/17 Pistons P+S. 24/1/17 Rods S+P. 24/1/17

Connecting rods 12/12/16 Crank shaft P. 23/10/16 Thrust shaft P+S. 8/9/16 Tunnel shafts 8/9/16 Screw shaft P+S. 14/1/17 Propeller 22/12/16

Stern tube P+S. 22/12/16 Steam pipes tested March 7 Engine and boiler seatings 2/3/17 Engines holding down bolts 2/3/17

Completion of pumping arrangements 12/3/17 Boilers fixed 12/3/17 Engines tried under steam 16/3/17

Main boiler safety valves adjusted 16/3/17 Thickness of adjusting washers Port tubes 3/4" 1/2" Water tubes 1/2" 1/2" Stud Bolts 1/2" 1/2" Donkey Boiler Stud 3/4" 1/2"

Material of Crank shaft Steel Identification Mark on Do. 277 H.P.S. Material of Thrust shaft Steel Identification Mark on Do. 278 H.P.S.

Material of Tunnel shafts Steel Identification Marks on Do. 279 H.P.S. Material of Screw shafts Ingot Steel Identification Marks on Do. Working 280 H.P.S. 281 H.P.S.

Material of Steam Pipes Lap welded copper Test pressure 400 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.)

The Engines and boiler of this vessel have been constructed under special survey in accordance with the rules of this Society and the approved plans. The workmanship and materials are good. The engines and boilers tried under steam and all found satisfactory rendering the vessel eligible for record + L.M.C. 3.17
Electric Light. Forced draught and fitted for oil fuel. Flash point above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3.17. F.D.

Fitted for oil fuel 3.17. F.P. above 150°F.

J.W.D.

A.P.S.

The amount of Entry Fee ... £ 15.00

Special ... £ 10.00

Donkey Boiler Fee ... £ 10.00

Travelling Expenses (if any) £ 4.00

When applied for, 31. March 1917

When received, 1915

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

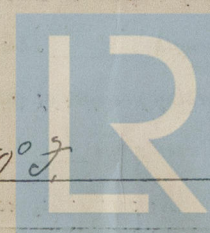
Committee's Minute

New York APR 12 1917

Assigned

+ L.M.C. 3.17

Fitted for oil fuel F.P. above 150°F.
J.D. Elec Light



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