

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 25 MAR 1928

Date of writing Report 19 When handed in at Local Office 24 MAR. 1928 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 7 Oct. 27 Last Survey 17 Mar 1928
 Reg. Book. 40044 on the S. S. "BOSNIA" (Number of Visits 42) Tons { Gross 2396
 Net 1247
 Built at Sunderland By whom built J. L. Thompson and Sons Ltd Yard No. 560 When built 1928
 Engines made at Sunderland By whom made John Dickinson & Sons Ltd Engine No. 891 when made 1928
 Boilers made at Sunderland By whom made John Dickinson & Sons Ltd Boiler No. 891 when made 1928
 Registered Horse Power Owners America - Servant Line Ltd Port belonging to London

Nom. Horse Power as per Rule 403 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended General cargo

ENGINES, &c.—Description of Engines Triple Expansion - Single Screw. Revs. per minute 76

Dia. of Cylinders 24" - 40" - 66" Length of Stroke 45" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 12.568" Crank pin dia. 12 3/4" Crank webs Mid. length breadth 24 1/4" Thickness parallel to axis 8"
 as fitted 12 3/4" Mid. length thickness 8" shrunk Thickness around eye-hole 5 1/8"

Intermediate Shafts, diameter as per Rule 11.97" Thrust shaft, diameter at collars as per Rule 12.568"
 as fitted 12 1/8" as fitted 12 3/4"

Tube Shafts, diameter as per Rule 13.32" Is the lube shaft fitted with a continuous liner Yes
 as fitted 13 1/2" as fitted 13 1/2"

Bronze Liners, thickness in way of bushes as per Rule .707" Thickness between bushes as per Rule .53" Is the after end of the liner made watertight in the
 as fitted 3/4" as fitted 2 1/2"

propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
 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 ✓
 If two liners are fitted, is the shaft lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after
 end of the tube shaft ✓ Length of Bearing in Stern Bush next to and supporting propeller 4' 6"

Propeller, dia. 16' 6" Pitch 15' 9" No. of Blades 4 Material Bronze Whether Moveable No Total Developed Surface 82 sq. feet

Feed Pumps worked from the Main Engines, No. None Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 22 1/2" Can one be overhauled while the other is at work Yes
 No. and size 2. Wicks 7" x 9 1/2" x 21" Pumps connected to the Main Bilge Line { No. and size 1. Ballast 8" x 10" x 10"
 How driven Steam How driven Steam

Ballast Pumps, No. and size 1 - 8" x 10" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size ✓
 Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 4 @ 2 1/2" Dia. & 1 @ 3" Dia.
 In Holds, &c. Fore Hold 2 @ 2 1/2" Dia., Main Hold 2 @ 3" Dia., aft Hold 2 @ 3" Dia.
Tunnel Well 1 @ 2 1/2" Dia.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Dia. Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 @ 4 1/2" Dia. Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with 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 Overboard Discharges above or below the deep water line Above
 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 pass through the bunkers None How are they protected ✓
 What pipes pass through the deep tanks None Have they been tested as per Rule ✓
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 5944 sq. ft.
 Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended Marine type Working Pressure 180 lbs. sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers Yes
 (If not state date of approval)

Superheaters ✓ General Pumping Arrangements Yes (with Ship Report) Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:—1 - C.I. Propeller, 1 set of Coupling Bolts & Nuts, 2 Main Bearing Bolts & Nuts,
2 Top End Bolts & Nuts, 2 Bottom End Bolts & Nuts, 1 set of Feed Pump Valves, 1 set of Bilge Pump Valves,
50 assorted Bolts & Nuts, 3 Bars of Assorted Iron, 30 Condenser Tubes, 6 Plain Boiler Tubes,
1 cut Steel Plate, 1 Safety Valve Spring, 3 Patent Tube Stoppers, 3 Common Tube Stoppers,
1 Bottom End Bearing, 6 Wash Ring Bolts & Nuts

The foregoing is a correct description,

For John Dickinson & Sons, Limited.

Manufacturer.

Director.



© 2020

Lloyd's Register
Foundation

W560-0109

Dates
of Survey
while
building

During progress of
work in shops - -

During erection on
board vessel - - -

Total No. of visits **42**

1927. Oct. 7, 11, 14, 21, 27, 28. Nov. 2, 22, 25, 29. Dec. 4, 8, 20, 30. 1928 Jan. 5, 9, 10, 19, 21, 24, 30, 31. Feb. 6, 7, 8, 12, 14, 15, 17, 21, 22, 24, 29. Mar. 2, 5, 8, 12, 13, 14, 15, 16, 17.

Dates of Examination of principal parts—Cylinders **21-2-28** Slides **25-1-28** Covers **21-2-28**
 Pistons **5-1-28** Piston Rods **20-12-27** Connecting rods **29-11-27**
 Crank shaft **31-1-28** Thrust shaft **17-2-28** Intermediate shafts **17-2-28**
 Tube shaft ✓ Screw shaft **14-2-28** Propeller **15-2-28**
 Stern tube **7-2-28** Engine and boiler seatings **22-2-28** Engines holding down bolts **12-3-28**
 Completion of fitting sea connections **6-2-28**
 Completion of pumping arrangements **16-3-28** Boilers fixed **14-3-28** Engines tried under steam **17-3-28**
 Main boiler safety valves adjusted **8-3-28** Thickness of adjusting washers P.F. $\frac{3}{8}$ " P.A. $\frac{3}{8}$ " S.F. $\frac{1}{2}$ " S.A. $\frac{3}{8}$ " Dry F. & A. $\frac{1}{32}$ "
 Crank shaft material **Ingot Steel** Identification Mark **A.T.G. 31-1-28** Thrust shaft material **Ingot Steel** Identification Mark **A.T.G. 17-2-28**
 Intermediate shafts, material **Ingot Steel** Identification Marks **A.T.G. 17-2-28** Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material **Ingot Steel** Identification Mark **14-2-28 A.T.G.** Steam Pipes, material **Q. Steel** Test pressure **540 lbs** Date of Test **5-3-28**
 Is an installation fitted for burning oil fuel **No** Is the flash point of the oil to be used over 150°F. ✓
 Have the requirements of the Rules for carrying and burning oil fuel been complied with ✓
 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 materials and workmanship are good.

*The Machinery has been constructed under Special Survey, and satisfactorily fitted in the vessel, and is eligible in my opinion for classification and the notation **L.M.C. 3, 28***

The amount of Entry Fee ... £ **5** :
 Special ... £ **85** : **9** :
 Donkey Boiler Fee ... £ **7** : **2** :
 Travelling Expenses (if any) £ : :
 When applied for, **21 Mar 1928**
 When received, **24 Mar 1928**

Committee's Minute

Assigned

8261 HAV 08 1928
FRI. 30 MAR 1928
+ L.M.C. 3, 28

CERTIFICATE WRITTEN

A. I. Griffith.

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register
Foundation