

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 24 OCT 1925

Date of writing Report 15. 10. 1925 When handed in at Local Office 19 OCT 1925 Port of LIVERPOOL
 No. in Survey held at Lytham Date, First Survey 17th Oct 1925 Last Survey 17th Oct 1925
 Reg. Book. 38857 on the S.S. 'Elmfield' (Number of Visits 3)
 Built at Lytham By whom built Lytham S.B. & Eng. Co. Ltd. Yard No. 674 Tons { Gross 449 Net 175
 Engines made at J= By whom made J= Engine No. 483 when built 1925
 Boilers made at J= By whom made J= Boiler No. 483 when made 1925
 Registered Horse Power 82 Owners Zillah Shpg. & Carrying Co. Ltd. Port belonging to Liverpool
 Nom. Horse Power as per Rule 82 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended coasting

ENGINES, &c.—Description of Engines Vertical compound ✓ Revs. per minute 110 ✓
 Dia. of Cylinders 17 + 38 ✓ Length of Stroke 24 ✓ No. of Cylinders 2 ✓ No. of Cranks 2 ✓
 Crank shaft, dia. of journals as per Rule 7 1/2 ✓ as fitted 7 5/8 ✓ Crank pin dia. 7 5/8 ✓ Crank webs Mid. length breadth 10 1/2 ✓ Mid. length thickness 5" ✓ Thickness parallel to axis 5" ✓ Thickness around eye-hole 3 3/16 ✓
 Intermediate Shafts, diameter as per Rule 7.15 ✓ as fitted 7 1/4 ✓ Thrust shaft, diameter at collars as per Rule 7 1/2 ✓ as fitted 7 5/8 ✓
 Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 7 3/4" ✓ as fitted 8" ✓ Is the shaft fitted with a continuous liner { screw } yes ✓
 Bronze Liners, thickness in way of bushes as per Rule 17/32 ✓ as fitted 19/32 ✓ Thickness between bushes as per Rule 17/32 ✓ as fitted 17/32 ✓ Is the after end of the liner made watertight in the 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 ✓
 Propeller, dia. 9'-0" ✓ Pitch 10'-6" ✓ No. of Blades 4 ✓ Material C.I. ✓ whether Moveable yes ✓ Total Developed Surface 26 ✓ sq. feet
 Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 2 3/4" ✓ Stroke 12" ✓ Can one be overhauled while the other is at work yes ✓
 Bilge Pumps worked from the Main Engines, No. 2 ✓ Diameter 2 3/4" ✓ Stroke 12" ✓ Can one be overhauled while the other is at work yes ✓
 Feed Pumps { No. and size 1, 5' x 3 1/2" x 6" ✓ How driven steam ✓ Pumps connected to the Main Bilge Line { No. and size 1, 6 1/2" + 6 1/2" x 8" ✓ How driven steam ✓
 Ballast Pumps, No. and size 1, 6 1/2" + 6 1/2" x 8" ✓ 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 2 @ 2 1/4", 2 @ 2 1/2" ✓ In Holds, &c. 3 @ 2 1/2" ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1, 3 1/2" ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 2 1/2" ✓
 Are all the Bilge Suction Pipes in holds ~~and tanks~~ 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. yes ✓
 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.
 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 bilge & ballast lines for ✓ How are they protected wood casing. ✓
 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. ✓ Is it fitted with a watertight door. ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record 5 ✓) Total Heating Surface of Boilers 14960' ✓
 Is Forced Draft fitted no ✓ No. and Description of Boilers one, S.E. cylindrical ✓ Working Pressure 140 lbs. ✓
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes ✓
 IS A DONKEY BOILER FITTED? no ✓ If so, is a report now forwarded? ✓
PLANS. Are approved plans forwarded herewith for Shafting yes ✓ Main Boilers yes ✓ Auxiliary Boilers ✓ Donkey Boilers ✓
 Superheaters ✓ General Pumping Arrangements yes ✓ Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:—
 2 propeller blades
 1 eccentric strap.
 1 pair each top & bottom end brasses.
 2 top end, 2 bottom end & 2 main bearing bolts.
 1 set coupling bolts.
 1 feed & bilge pump valves.
 assorted bolts & nuts & iron, tube stoppers & rods.

The foregoing is a correct description,
 THE LYTHAM SHIPBUILDING AND
 ENGINEERING COMPANY, LIMITED.
 W. Housley
 DIRECTOR

Manufacturer.



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 Lloyd's Register
 Foundation

Date of writing Report

No. in Survey held Reg. Book.

38857 on the

Master

Engines made at

Boilers made at

Nominal Horse Power

MULTITUBULAR

Manufacturers of

Total Heating Surface

No. and Description

Tested by hydraulic

Area of Firegrate

Area of each set of

In case of donkey boiler

Smallest distance between

Smallest distance between

Largest internal diameter

Thickness 7/8"

long, seams

Percentage of strength

Percentage of strength

Thickness of butt

Material

Length of plain part

Dimensions of stiffeners

End plates in steam

How are stays secured

Tube plates: Material

Mean pitch of stay

Girders to combustion

at centre 7 1/2 x 5

in each 2, 9

Tensile strength

Pitch of stays to diameter

Working pressure

Thickness 2 1/2

Pitch of stays at diameter

Working Pressure

Diameter { At body of or Over thread

Working pressure

Diameter { At turned end or Over thread

Working pressure

Diameter { At body of or Over thread

Working pressure

Diameter { At turned end or Over thread

Working pressure

Dates of Survey while building

During progress of work in shops - - 1925 Mar. 6 April 7, 27, May 15, 27 June 9 July 3, 22, 30 Aug. 19 Sept. 8, 24 Oct. 12.

During erection on board vessel - - -

Total No. of visits 13.

Dates of Examination of principal parts—Cylinders 15.5.25 Slides 9.6.25 Covers 15.5.25

Pistons 15.5.25 Piston Rods 7.4.25 Connecting rods 7.4.25

Crank shaft 7.4.27/4/25 Thrust shaft 15.5.25 + 7/4/25 Intermediate shafts ✓

Tube shaft ✓ Screw shaft 15/5/25, 3/7/25 Propeller 3.7.25

Stern tube 9.6.25 Engine and boiler seatings 3.7.25 Engines holding down bolts 22.7.25

Completion of pumping arrangements 24.9.25 Boilers fixed 19.8.25 Engines tried under steam 24.9.25

Main boiler safety valves adjusted 24.9.25 Thickness of adjusting washers 3/8"

Crank shaft material M.S. Identification Mark 1341, 1448. Thrust shaft material ✓ Identification Mark ✓

Intermediate shafts, material M.S. Identification Marks 1348 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material M.S. Identification Mark 1342 Steam Pipes, material S.D. copper ✓ Test pressure 280 ✓ Date of Test 8.9.25

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 machinery of this vessel has been built under Special Survey, and the materials & workmanship are good. After erection in the shop the machinery has been fitted on board in an efficient manner & tried under steam, and is now eligible to have the record of + L.M.C. 10.25.

The forgings for this engine were from old stock, stamped & passed in 1919/20, the reports on which were forwarded with previous cases.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.25. CL.

S. Townsend
27/10/25

CERTIFICATE WRITTEN

The amount of Entry Fee ... £ 2 : 0 : 0

Special ... £ 20 : 10 : 0

Donkey Boiler Fee ... £ : : 0

Travelling Expenses (if any) £ 8 : 2 : 6

When applied for, 20.10.25

When received, 25/10/25

S. Townsend
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 23 OCT 1925

Assigned + to M.C. 10.25.

Ch. [Signature]



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The Surveyors are requested not to write on or below the space for Committee's Minute.