

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

13 MAY 1942

Date of writing Report

When handed in at Local Office

Port of Liverpool

No. in Survey held at Lytham & Preston

Date, First Survey 28/5/41

Last Survey 20/4 1942

Reg. Book. on the Steel Screw "FRESHBROOK"

(Number of Visits 41)

Gross 278.14

Net 98.69

Built at Lytham

By whom built Lytham SB&E Co Ltd

Yard No. 868

When built 1942

Engines made at do

By whom made do

Engine No. 547

When made do

Boilers made at do

By whom made do

Boiler No. 546

When made do

Registered Horse Power 90

Owners The Admiralty

Port belonging to London

Nom. Horse Power as per Rule 90

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which Vessel is intended "For Government Service"

ENGINES, &c.—Description of Engines Triple Expansion Inverted. Revs. per minute 180

Dia. of Cylinders 11"-18"-30" Length of Stroke 21" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 5.79" Crank pin dia. 6" Crank webs Mid. length breadth 10" Thickness parallel to axis 3 5/8"

as fitted 6" Mid. length thickness 3 3/8" shrunk Thickness around eye-hole 3"

Intermediate Shafts, diameter as per Rule 5.514" Thrust shaft, diameter at collars as per Rule 5.79"

as fitted 5 3/4" as fitted 6 1/4"

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 6.334 Is the shaft shaft fitted with a continuous liner No

as fitted as fitted 6 1/2"

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule 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 Yes

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 Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Yes

If so, state type Lytham SB&E Co Type Length of Bearing in Stern Bush next to and supporting propeller 27"

Propeller, dia. 6'-10" Pitch 7'-0" No. of Blades 4 Material C-I whether Movable No Total Developed Surface 13 sq. feet

Feed Pumps worked from the Main Engines, No. Two Diameter 2" Stroke 10 1/2" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. Two Diameter 2" Stroke 10 1/2" Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size One 6" x 4" x 12" Simplex Pumps connected to the { No. and size Two ME Pumps & One 6 1/2" x 6" x 12" Simplex

{ How driven Steam Main Bilge Line { How driven G.S. pumps, Steam Driven

Ballast Pumps, No. and size One 10 1/2" x 12" x 24" Simplex 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 One P&S at fore end of ER, one at aft end of ER, all 2 1/2" dia. One direct suction in ER, 2 1/2" dia

In Stokehold One P, S, & Central, all 2 1/2" dia. In Holds, &c. 2" dia suction in forepeak, chain locker, store, crew space, gland compartment & aft peak; connected to salvage pump & 2 Downston Pumps.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 4" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 2 1/2" dia in ER, One 2 1/2" " " Stokehold 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 Valves

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 No worked from ✓

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1600 sq. ft.

Is Forced Draft fitted Yes No. and Description of Boilers One Single Ended Multitubular (Scott's) type Working Pressure 180 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

Is the donkey boiler intended to be used for domestic purposes only ✓ 22/4/41

PLANS. Are approved plans forwarded herewith for Shafting No Main Boiler No Auxiliary Boilers ✓ Donkey Boilers ✓

(If not state date of approval) 22/4/41 22/4/41

Superheaters ✓ General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements ✓

SPARE GEAR.

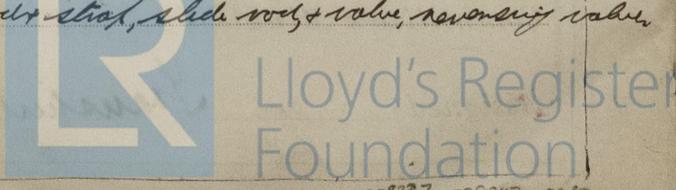
Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied

main bearing bolts & nuts (2). Studs & nuts for ME cylinder covers, (6). Studs & nuts for fund rings (6). Pump lent Gresses (1 set). Eccentric shaft coupler. Set of metallic for ME valve spindle. Condenser tubes & ferrules (12+24). Boiler safety valve spring (1). Boiler smoke tubes (6). Set of piston & bucket rings to each independent pump. Steering engine 1 set of main & top & bottom brasses. Fans & salvage pump, 1 impeller & shaft, engine - main top & bottom brasses (1 set each), piston rod, spindle, eccentric rod & strap, metallic packing (1 set), lub oil pump. Fan Engines:—Piston rings, main bearing & con rod bolts. Electric Generator:—armature & bearings, 1 set field coils, 1 set interpole coils, brushes & holder. Electric engine:—top, bottom & main brasses, piston valve & spindle, gov spring, stock & members & assentant parts. Mindless:—bearing, top & bottom brasses, piston rod, eccentric rod & strap, slide rod & valve, reversing valve.

The foregoing is a correct description,
THE LYTHAM SHIPBUILDING and ENGINEERING COMPANY, LIMITED
 R. Friedenthal

Manufacturer.



May 28. June 10, 19, 25. July 8, 15, 24, 31. Aug 8, 21. Sept 10, 17, 23, 30. Oct 10, 24, 28. Nov 3, 14, 18, 28. Dec 5, 12, 23. Jan 2, 9, 15, 28.
 Feb 13, 20. Mar 5, 20, 24, 27, 30. Apr 7, 11, 15, 17, 20.

Dates of Survey while building: During progress of work in shop --- During erection on board vessel ---
 Total No. of visits: **41**

Dates of Examination of principal parts—Cylinders 15/7/41 & 21/8/41 Slides 18/11/41 Covers 10/9/41
 Pistons 10/9/41 Piston Rods 8/8/41 Connecting rods 21/8/41
 Crank shaft 8/8/41 & 10/9/41 Thrust shaft 8/7/41 Intermediate shafts 8/7/41
 Tube shaft --- Screw shaft 8/7/41 Propeller 10/9/41 & 23/9/41
 Stern tube 23/9/41 Engine and boiler seatings 18/11/41 Engines holding down bolts 2/1/42
 Completion of fitting sea connections 3/11/41
 Completion of pumping arrangements 20/3/42 Boilers fixed 12/12/41 Engines tried under steam 24/3/42. Trial 11/41
 Main boiler safety valves adjusted 27/3/42. Thickness of adjusting washers *Std Valve 7/16" Port Valve 7/16"*
 Crank shaft material *Steel*. Identification Mark ²²¹² AE 10.9.41 Thrust shaft material *Steel* Identification Mark ²²¹³ AE 8-7.41
 Intermediate shafts, material *Steel* Identification Marks ^{2214/A/B} AE 8.7.41 Tube shaft, material --- Identification Mark ---
 Screw shaft, material *Steel* Identification Mark ²²¹⁵ AE 8.7.41 Steam Pipes, material *SD Copper* Test pressure 450 lb² Date of Test 10/2/42
 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 the use of oil as fuel been complied with ---
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* If so, have the requirements of the Rules been complied with ---
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ---
 Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *"Frochet" & "Frochwater"*

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

The machinery of this vessel has been constructed under special Survey in accordance with the approved plans and the Society's Rules. The materials and workmanship are sound and good. It has been satisfactorily fitted on board, tried under steam under full working conditions and found satisfactory.

It is eligible in my opinion to be classed in the Register Book with notation + LMC 4.42-TS-06-1SB 180 lb²

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

The amount of Entry Fee ... £ 2 : 0 : 0
 Special ... £ 22 : 10 : 0
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 10 : 2/10⁴

When applied for, **9 MAY 1942**
 When received, 19...

WMB Edwards & H. Lindley
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute **LIVERPOOL 12 MAY 1942**

Assigned *Transit to London.*

