

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 31-8 1946 When handed in at Local Office 19 Port of LIVERPOOL

No. in Survey held at Lytham, Preston & Fleetwood Date, First Survey 15/9/44 Last Survey 6/8/1946  
 Reg. Book on the "FRESHSPRAY" (Number of Visits 45) Tons { Gross 282.91  
 Net 92.82

Built at Lytham By whom built The Lytham S.B. & C. Co. Ltd. Yard No. 885 When built 1946  
 Engines made at do By whom made do Engine No. 557 When made 1946  
 Boilers made at do By whom made do Boiler No. 556 When made 1946  
 Registered Horse Power 90 Owners The Admiralty Port belonging to London  
 Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which vessel is intended Admiralty Tender Service

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

Dia. of Cylinders 11" x 18" x 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" Mid. length breadth 10" Thickness parallel to axis 3 5/8"  
 as fitted 6" Crank webs as per Rule 5.79" 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 6.534" Is the { tube screw } shaft fitted with a continuous liner { no }  
 as fitted 6.5" as fitted 6.5"  
 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  
 as fitted ✓ as fitted ✓ propeller boss ✓ 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  
 at yes If so, state type Lytham S.B. & C. Co. Length of Bearing in Stern Bush next to and supporting propeller 24"  
 Propeller, dia. 6-10" Pitch 7-0 No. of Blades 4 Material CI. whether Moveable 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 1/2" x 12" simplex Pumps connected to the { No. and size Two Eng pumps + one 6 1/2" x 6 1/2" x 12" simplex  
 How driven steam Main Bilge Line { How driven 4.5 pump 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 RIS at fore end of ER, one at aft end of ER all 2 1/2" dia, one direct suc in ER 2 1/2" dia.  
 In Pump Room One - RIS + centre, all 2 1/2" dia In Holds, &c. 2 1/2" suction in chain locker, one spec glass compartment  
 connects to salvage pump, 4.5 pump + 1 Downston pump.  
 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 + 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.  
 Which Boilers are fitted with Forced Draft all (one) Which Boilers are fitted with Superheaters none  
 No. and Description of Boiler single ended multitubular (skated) Working Pressure 180 lb/sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ✓  
 Can the donkey boiler be used for domestic purposes only ✓  
 PLANS. Are approved plans forwarded herewith for Shafting 18-4-41 Main Boilers 8-4-41 Auxiliary Boilers ✓ Donkey Boilers ✓  
 (If not state date of approval)  
 Superheaters ✓ General Pumping Arrangements 24-9-42 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: 2 main bearing balls, 6 ME cyl slides + nuts, 6 ME piston ring studs, pump  
link brasses, 1 set each ME piston rings, 1 set ME piston + valve rod packing, 2 condenser journals + plugs,  
1 set of piston + binder rings for each independent pump, 2 each top, bottom + main bearing balls,  
steering org: 1 set each main top + bottom end brasses, piston rod eccentric, screw + strap, 5 control valves,  
1 distributor valve, 2 air + salvage pump: 1 set of main top + bottom brasses, piston rod, metallic packing,  
1 set of suc + dis valves for each independent pump.  
E.D. Fan brg: 1 set connecting rod balls + valve rings. Dynamo brg: 1 set piston rings, main  
top + bottom brasses, governor straps. Generator: Armature wind bearings, 1 set of field coils,  
brushes + springs. Moulding: 1 set of main bearings.

The foregoing is a correct description.

THE LYTHAM SHIPBUILDING and  
ENGINEERING COMPANY, LIMITED

Manufacturer.

R. Friedmanthal



During progress of work in shops - - 15/9/44  
Dates of Survey while building During erection on board vessel - - 6/8/46  
Total No. of visits 45

Dates of Examination of principal parts—Cylinders 16-1-45; 24-4-45; 17-8-45 Slides 16-1-45; 24-4-45; Covers 24-4-45.  
Pistons 16-1-45; 24-4-45. Piston Rods 24-3-45; 24-4-45; 25-1-46 Connecting rods 17-8-45; 25-1-46.  
Crank shaft 16-1-45; 28-12-45. Thrust shaft 17-8-45 Intermediate shafts 17-8-45.  
Tube shaft — Screw shaft 24-4-45; 17-8-45. Propeller 1-3-46  
Stern tube 14-2-46 Engine and boiler seatings 24-3-46 Engines holding down bolts 9-6-46.  
Completion of fitting sea connections 1-3-46.  
Completion of pumping arrangements 1-8-46. Boilers fixed 7-3-46 Engines tried under steam 1-8-46.  
Main boiler safety valves adjusted 26-7-46. Thickness of adjusting washers P15 valves 1/32"  
Crank shaft material Steel Identification Mark 28-12-45 FAF Thrust shaft material Steel Identification Mark 25-8-45 FAF  
Intermediate shafts, material Steel Identification Marks 17-8-45 Tube shaft, material — Identification Mark —  
Screw shaft, material Steel Identification Mark 17-8-45 FAF Steam Pipes, material Steel Test pressure 540 lb/in<sup>2</sup> Date of Test 1-5-46  
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 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 Freshford Limerick Mill  
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 and full working conditions and found satisfactory.  
It is eligible in my opinion to be classed in the Register Book with notation :- +LMC 8-46. TS(OG) -1SB-180 lb/in<sup>2</sup>.

1st Entry & Classification £ 0-0-0  
The amount of Entry Fee  
Special £ 10  
Donkey Boiler Fee £  
Travelling Expenses (if any) £ 18 : 17/5

When applied for, 24 SEP 1946  
When received, 19

W. Lindley  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Assigned Transmit to London

+LMC 8,46.  
F.D. 0.6.

Liverpool 10 SEP 1946  
Lloyd's Register Foundation