

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 20 AUG 1942

Date of writing Report

When handed in at Local Office

Port of

No. in Survey held at
Reg. Book.

Date, First Survey

Last Survey

27/7/1942

(Number of Visits 59)

on the *Steel screw "FRESHENER"*Tons { Gross 278.14
Net 98.69Built at *Lytham*

By whom built

The Lytham S.B. & C. Co. Ltd.

Yard No. 869

When built 1942

Engines made at *Lytham*

By whom made

- do -

Engine No. 548

When made - do -

Boilers made at *Lytham*

By whom made

- do -

Boiler No. 547

When made - do -

Registered Horse Power

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 Admiralty Tender Services"

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 5.49

Crank pin dia. 6"

Crank webs

Mid. length breadth 10"

Thickness parallel to axis 3 3/8"

as fitted 6"

Mid. length thickness 3 3/8"

Thickness around eye-hole 3"

Intermediate Shafts, diameter as per Rule 5.514

as fitted 5 3/4"

Thrust shaft, diameter at collars as per Rule 5.49

as fitted 6 1/4"

Tube Shafts, diameter as per Rule 6.334

as fitted 6 1/2"

Screw Shaft, diameter as per Rule 6.334

as fitted 6 1/2"

Is the { tube } shaft fitted with a continuous liner { NO }

Bronze Liners, thickness in way of bushes as per Rule 6.334

as fitted 6 1/2"

Thickness between bushes as per Rule 6.334

as fitted 6 1/2"

Is the after end of the liner made watertight in the

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

If so, state type *Lytham S.B. & C. Co. Ltd. (Type)*

Propeller, dia. 6'-10" Pitch 4'-0" No. of Blades 4

Material C.I.

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" x 12" simplex

Pumps connected to the

No. and size Two M.E. pumps + one S.P. pump 6" x 6" x 12"

How driven Steam

Main Bilge Line

How driven Sevens

Steam driven simplex

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 E.R. One at aft end of E.R. One 2 1/2" dia. One direct suction in E.R. 2 1/2" dia.

In Pump Room One P.S. + Centre, All 6 1/2" dia. In Holds, &c. 2 1/2" dia. suction in fore peak, chain locker, stowage space, gland compartment + aft peak, connected to salvage pump + 1 Downton 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" in E.R. One 2 1/2" in Stowage

Are 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 alone

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

Which Boilers are fitted with Forced Draft The main Boiler

Which Boilers are fitted with Superheaters NONE

No. and Description of Boilers One single ended multi-tube (scotch) type Working Pressure 180 lbs/sq

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded? yes

Can the donkey boiler be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting No (18-4-40) Main Boilers No (18-4-40) Auxiliary Boilers

(If not state date of approval)

Superheaters

General Pumping Arrangements No (5-11-41)

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 bolts + nuts, 6 M.E. cylinder cover studs + nuts, 6 M.E. pump neck studs

+ nuts, 1 complete pump link bearing eccentric strap, 1 set of valve rod packing, condenser tubes + ferrules 12 x 24,

1 boiler safety valve spring, 6 boiler smoke tubes, set of piston + bucket rings for each in dependent pump,

steering engine:—1 set of main top + bottom braces, 1 set of main top + bottom braces, 1 set of main top + bottom braces,

top + bottom braces, piston rod + guide, eccentric rod + strap, valve spindle + nut, metallic packing, piston

valve, lub oil pump unit + plunger, Force Draft Fan engine:—Piston + valve rings, main bearing +

conn' rod balls, Electric Generator:—1 Armature with bearings, field coils, Brushes

+ holders, Dynamo engine:—1 each main top + bottom end braces, piston rod, eccentric rod + strap, valve + spindle

Windlass:—1 each main top + bottom end braces, piston rod, eccentric rod + strap, valve + spindle

complete, control + reversing valve, neck rings for piston valve rods, 1 set of piston rings for all purposes.

The foregoing is a correct description.

THE LYTHAM SHIPBUILDING AND
ENGINEERING COMPANY, LIMITED

Manufacturer.

R. Friedenthal

008812 - 008822 - 0106

Lloyd's Register
Foundation

Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?

NOTE.—The words which do not apply should be deleted.

5,111/57. T. (MADE IN ENGLAND.)

598811.01

1941 May 3.13.28. June 10.19.25. July 8.24.31. Aug 8.21. Sept 2.10.17.23.30. Oct 10.24. Nov 3.14.18.28.
Dec 5.12.23. 1942 Jan 2.9.15.28. Feb 13.20. Mar 5.9.11.14.24.27. Apr 2.7.10.17.24.30. May 5.8.15.22.21.
June 5.24. July 3.6.10.14.15.17.21.22.27.
During progress of work in shops - -
Dates of Survey while building
During erection on board vessel - - -
Total No. of visits 59.

Dates of Examination of principal parts—Cylinders 21-8-41, 30-9-41 Slides 30-9-41. Covers 10-9-41.
Pistons 10-9-41. Piston Rods 8-8-41, 21-8-41, 13-2-42. Connecting rods 8-8-41, 21-8-41, 5-3-42.
Crank shaft 29-4-41, 17-9-41, 5-12-41, 21-4-42. Thrust shaft 24-7-41. Intermediate shafts 24-7-41.
Tube shaft ✓ Screw shaft 24-7-41. Propeller 10-9-41, 23-9-41.
Stern tube 23-9-41, TESTED 13-3-42. Engine and boiler seatings 17-4-42. Engines holding down bolts 15-5-42.
Completion of fitting sea connections 14-3-42.
Completion of pumping arrangements 14-7-42. Boilers fixed 24-4-42. Engines tried under steam 3-7-42, 17-7-42.
Main boiler safety valves adjusted 14-7-42. Thickness of adjusting washers STEEL VALVE 11/32" PORT VALVE 3/8"
Crank shaft material STEEL Identification Mark NO 2219 AE 2-1-42. Thrust shaft material STEEL Identification Mark NO 2214 AE 24-7-41
Intermediate shafts, material STEEL Identification Marks NO 2218 A+B AE 24-7-41 Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material STEEL Identification Mark NO 2216 AE 24-7-41 Steam Pipes, material S.D. COPPER Test pressure 450 lb/sq in Date of Test 24-6-42
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 "Greenbrook."
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 material and workmanship are sound & 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 7-42. T.S. OG, 15B-180 lb/sq in.

The amount of Entry Fee ... £ 2 : - : - When applied for,
Special ... £ 22 : 10 : - 24 AUG 1942
Donkey Boiler Fee ... £ : : - When received,
Travelling Expenses (if any) £ 10 : 16/2 : - 19

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

Committee's Minute LIVERPOOL 18 AUG 1942
Assigned Transmitted to London. 8811

FRI. 28 AUG 1942

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For S.S.O.F. see H.M.S. "Greenbrook" (No 117763)

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