

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 _____ When handed in at Local Office 19 _____ Port of _____

No. in Survey held at Sydam + Preston Date, First Survey 10/10/41 Last Survey 19/3/1943
 Reg. Book _____ (Number of Visits 49)

on the Steel Screw FRESHMERE

Built at Sydam By whom built The Sydam S.B. & Co. Ltd. Yard No. 84 Tons { Gross 282.983
 Net 92.823 When built 1943

Engines made at Sydam By whom made - do - Engine No. 550 When made - do -

Boilers made at Sydam By whom made - do - Boiler No. 549 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" shrunk Thickness around eye-hole 3"

Intermediate Shafts, diameter as per Rule 5.514" Thrust shaft, diameter at collars as per Rule 5.49"
 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 tubo 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
 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
 shaft yes If so, state type Sydam S.B. & Co. Type Length of Bearing in Stern Bush next to and supporting propeller 27"

Propeller, dia. 6'10" Pitch 4'0" No. of Blades 4 Material Cast Iron 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, 6x4x12" simplex Pumps connected to the { No. and size Two M.E. pumps + one 6 1/2 x 6 x 12" simplex
 How driven steam Main Bilge Line { How driven S.S. 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 P+S at fore end of ER, One at after end of ER, and 2 1/2" dia. One direct suction in ER at 12" dia.
 In Pump Room One P+S and Centre, at 2 1/2" dia. In Holds, &c. 2" dia. suction in chain locker, store, crew's space,
 gland compartment, connected to salvage pump and 1 Downton Pump + S.S. 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 ER One 2 1/2" in BR 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 (Stona) if 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 1 single ended multitubular (scotch) type Working Pressure 180 lbs/sq. in.

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 ✓

PLANS. Are approved plans forwarded herewith for Shafting 8-4-41 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 bolts, 6 M.E. cyl cover studs & nuts, 6 M.E. feed pump studs & nuts

1 Complete pump link-bearing, eccentric strap, 1 set of valve rod packing, condenser tubes & ferrules (12-24), 1 Valve safety valve spring, 6 Blr tubes, 1 set of piston & bucket rings for each independent pump.

cleaning Engines:—1 set of main, top & bottom brasses, Gene + Salvage Pump:—1 Impeller + shaft; Engines:—main, top & bottom brasses, piston rod guide, eccentric rod & strap, valve spindle & metallic packing, piston valve

lub air pump + plunger, S.S. Fan Eng:—main bearing + connecting rod bolts.

Electric Generator:—1 Armatures with bearings

Generator Engine:—1 each main, top & bottom brasses, valve + spindle, Governor springs.

Windlass:—1 each main, top & bottom brasses, piston, + eccentric rod & strap, valve + spindle complet.

The foregoing is a correct description.

THE LYTHAM SHIPBUILDING and ENGINEERING COMPANY, LIMITED

Manufacturer.

R. Friedenthal



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008823-008830-002

NOTE.—The words which do not apply should be deleted. If not, state whether, and when, one will be sent.

1941 Oct 10, Nov 18, 28, Dec 5, 23, Jan 2, 9, Feb 13, 20, Apr 17, 24, May 5, 15, 22, June 5, 24, July 3, 16, 31.
 During progress of work in shops - - Aug 7, 21, 31, Sept 4, 11, 18, 23, 26, Oct 2, 16, 24, 30, Nov 6, 20, 26, Dec 4, 11, 18, 23, 1942 Jan 11, 15, 21, Feb 4, 10, 26, Mar 5, 9, 12, 18, 19.
 Dates of Survey while building } During erection on board vessel - - -
 Total No. of visits 49

Dates of Examination of principal parts—Cylinders 22-5-42 Slides 22-5-42 Covers 22-5-42
 Pistons 22-5-42 Piston Rods 31-7-42, 23-12-42 Connecting rods 31-7-42, 23-12-42
 Crank shaft 31-7-42, 7-8-42, 21-8-42 Thrust shaft 31-7-42, 7-8-42, 21-8-42 Intermediate shafts 31-7-42, 7-8-42, 21-8-42
 Tube shaft ✓ Screw shaft 31-7-42, 7-8-42, 21-8-42 Propeller 21-8-42
 Stern tube 25-4-42 Engine and boiler seatings 11-12-42, 24-12-42 Engines holding down bolts 11-1-43
 Completion of fitting sea connections 21-11-42
 Completion of pumping arrangements 9-3-43 Boilers fixed 4-12-42 Engines tried under steam 5-3-43
 Main boiler safety valves adjusted 18-3-43 Thickness of adjusting washers Port Valve 1 3/8" Std Valve 1/16"
 Crank shaft material *Steel* Identification Mark 2266 Thrust shaft material *Steel* Identification Mark 2241
 Intermediate shafts, material *Steel* Identification Marks AFT 2245-13-8-42 FAF, FFD 2250 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material *Steel* Identification Mark 2228 Steam Pipes, material *SD Copper* Test pressure 450 lb/sq in Date of Test 21-1-43
 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 ✓ 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 *Freshlake Liverpool No 118745*
 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 3-42, TS (OG) & 1513 180 lbs/sq in

The amount of Entry Fee ... £ 2 : - :
 Special ... £ 22 : 10 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 10 : 19/9 :
 When applied for, 9 APR 1943
 When received, 19

J. H. Hendley
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 173 APR 1943
 Assigned Transmit to London *[Signature]*

TUES. 4 MAY 1943
 + LMC 3-42
 F.D. 06.
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The Surveyors are requested not to write on or below the space for Committee's Minute.

Rpt. 5a
 Date of writ
 No. in Reg. Book.
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