

pt. 4b.
REPORTED

REPORT ON OIL ENGINE MACHINERY.

No. 108040

Received at London Office 18 JAN 1951

When handed in at Local Office 17 JAN 1951 19 Port of NEWCASTLE-on-TYNE

Survey held at Date, First Survey 22/5/50 Last Survey 11/1/51 19
Number of Visits 33

Single on the Twin Triple Quadruple Screw vessel m.v. "BRITISH LADY" Tons Gross 6140 Net 3329

built at SOUTH BANK By whom built SMITHS DOCK CO. LD. Yard No. 1211 When built

engines made at NEWCASTLE By whom made R & W. HAWTHORN LESLIE & CO. LD. Engine No. 4072 When made 1950

Boilers made at By whom made Boiler No. When made

Indicated Horse Power 2500 MAX & SERVICE Owners Port belonging to

N. Power as per Rule 534 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Service for which vessel is intended OPEN SEA SERVICE

ENGINES, &c. Type of Engines HAWTHORN-DOXFORD OPPOSED PISTON or 4 stroke cycle 2 Single or double acting SINGLE

Maximum pressure in cylinders 640 LBS/SQ IN Diameter of cylinders 600 mm Length of stroke 2320 mm No. of cylinders 3 No. of cranks 3 THREE THROW

Mean Indicated Pressure 88 LBS/SQ IN Ahead Firing Order in Cylinders 1. 3. 2. Span of bearings, adjacent to the crank, measured BETWEEN EACH 3-THROW. Revolutions per minute 108

Distance from inner edge to inner edge 1890 mm Is there a bearing between each crank 3-THROW. Kind of fuel used HEAVY OIL

Propeller dia. 2300 mm Weight 3.43 TNS Moment of inertia of flywheel (lbs. in² or Kg. cm²) A. 1.13 Means of ignition COMPRESSOR Kind of fuel used HEAVY OIL

Shaft dia. of journals as per Rule APPROVED. Crank pin dia. 450 mm Crank webs Mid. length breadth 650 mm Thickness parallel to axis 255 mm

Intermediate Shafts, diameter as fitted 430 mm Thrust Shaft, diameter at collars as fitted 450 mm

Screw Shaft, diameter as fitted 430 mm Is the tube shaft fitted with a continuous liner YES

Liner thickness in way of bushes as per Rule 21 mm Thickness between bushes as fitted 16 mm 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 IN ONE LENGTH

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-

ositive 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

of tube shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller 4'-10 1/2"

propeller, dia. 15'-9" Pitch 11'-6" MEAN. No. of blades 4 Material BRONZE whether moveable No. Total developed surface 85 sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm²) 3.17 (INCLUDING 27% ENTRAINED WATER) Kind of damper, if fitted

Method of reversing Engines HAND LEVER AND COMPRESSED AIR Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of

operation FORCED Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled

lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

to the engine Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. NONE Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and size How driven

cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

arrangements

Electric Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size

any independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary

pumps, No. and size: In machinery spaces In pump room

Other Suctions, &c.

Independent Power Pump Direct Suctions to the engine room bilges, No. and size

Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction in the machinery spaces led from easily

removable mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

high on the ship's side to be seen without lifting the platform plates 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 Are the blow off cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

Are pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

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

or from one compartment to another Is the shaft tunnel watertight Is it fitted with a watertight door worked from

on a motor vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. NONE No. of stages diameters stroke driven by

Primary Air Compressors, No. No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

Provision is made for first charging the air receivers

Driving Air Pumps, No. ONE diameter 1700 mm stroke 608 mm driven by LEVERS FROM NO. 2 ENGINE

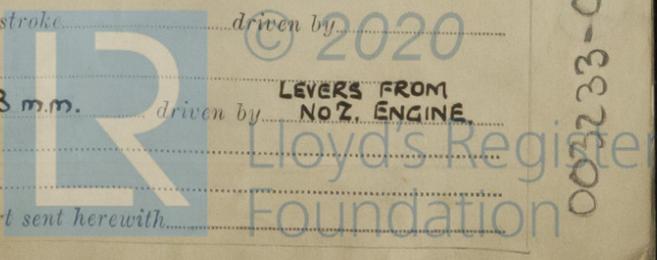
Primary Engines crank shafts, diameter as per Rule No. Position

Have auxiliary engines been constructed under special survey Is a report sent herewith



Handwritten initials and date: JM 6/2/51

Vertical reference number: 003233-003239-0135



4/B 108040

AIR RECEIVERS:—Have they been made under survey... **YES** State No. of report or certificate...
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule... **YES**
 Can the internal surfaces of the receivers be examined and cleaned... **YES** Is a drain fitted at the lowest part of each receiver... **YES**
Injection Air Receivers, No.... Cubic capacity of each... Internal diameter... thickness...
 Seamless, welded or riveted longitudinal joint... Material... Range of tensile strength... Working pressure...
Starting Air Receivers, No. **TWO** Total cubic capacity... **220 cu. ft.** Internal diameter... **4' 13/8"** thickness... **1 5/16"**
 Seamless, welded or riveted longitudinal joint... **ELECT. WELD.** Material... **M. STEEL** Range of tensile strength... **SHELL 28/32 TNS/0"** Working pressure... **ENDS 26/30 TNS/0"** Actual... **600**
IS A DONKEY BOILER FITTED... 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... **YES** Receivers... **YES** Separate fuel tanks...
 Donkey boilers... General pumping arrangements... Pumping arrangements in machinery space...
 Oil fuel burning arrangements...
 Have Torsional Vibration characteristics been approved... **YES** ✓ Date of approval... **22** **(17) 3. 50.**
SPARE GEAR.
 Has the spare gear required by the Rules been supplied... **YES**
 State the principal additional spare gear supplied... **AS PER ATTACHED LISTS (To come)**

The foregoing is a correct description AND THE PARTICULARS OF THE INSTALLATION AS FITTED ARE AS APPROVED FOR THE TORSIONAL VIBRATION CHARACTERISTIC
 Manufacturer.

Dates of Survey while building
 During progress of work in shops... 1950 MAY 22, 26, JUNE 2, 13, 19, JULY 7, 14, 24, 26, AUG. 10, 14, 16, 18, 22, 24, 28, 30, SEPT. 1, 5, 7, 11, 13, 15, 19, 21, 27, OCT. 3, 5, 6
 During erection on board vessel... 1951 JAN. 9, 11
 Total No. of visits... **33**
 Dates of examination of principal parts—Cylinders... LINERS... Covers... Pistons... 22.8.50 Rods... 22.8.50 Connecting rods... 1.9.50
 Crank shaft... 28.8.50 Flywheel shaft... Thrust shaft... IN CRANKSHAFT. Intermediate shafts... 9.1.51. Tube shaft...
 Screw shaft... 18.8.50 & 6.10.50 Propeller... 6.10.50 Stern tube... 9.1.51 Engine seatings... Engine holding down bolts...
 Completion of fitting sea connections... Completion of pumping arrangements... Engines tried under working conditions...
 Crank shaft, material... **FOHIS** Identification mark... **W.H.F. 5.7.50** Flywheel shaft, material... Identification mark...
 Thrust shaft, material... **FOHIS** Identification mark... **IN CRANKSHAFT.** Intermediate shafts, material... **FOHIS** Identification marks...
 Tube shaft, material... Identification mark... Screw shaft, material... **FOHIS** Identification mark...
 Identification marks on air receivers... **" LLOYDS TEST. TP 950 LBS. WP 600 LBS. AB, 11.9.50 "**

Welded receivers, state Makers' Name... **R & W. HAWTHORN LESLIE & CO. LD. NEWCASTLE ON TYNE.**
 Is the flash point of the oil to be used over 150°F...
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with...
 Description of fire extinguishing apparatus fitted...
 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... **NO.** If so, state name of vessel...

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The machinery referred to herein has been constructed under Special Survey accordance with the Society's Rules, Approved Plans, and Secretary's letter. The material and workmanship are good. The machinery has been despatched to South Bank for installation in Messrs. Smith's Dock Co. Ltd. Ship No. 1211.

220. 1ST ENTRY FEE.
 The amount of Entry Fee... £ 121. 4. 0
E.W. CONSTRUCTION
 Special (39 TNS)... £ 11 0 0
TWO AIR VESSELS.
 Donkey Boiler Fee... £ 8. 0. 0
 Travelling Expenses (if any) £
 Committee's Minute... **FRI 10 AUG 1951**
 Assigned... **Sue F.E. moly mph**
 When applied for... **17 JAN 1951**
 When received... 19
 Engineer Surveyor to Lloyd's Register of Shipping

Certificate (if required) to be sent to NEWCASTLE-ON-TYNE. The Surveyors are requested not to write on or below the space for Committee's Minute.

