

REPORT ON OIL ENGINE MACHINERY.

No. 60852

MAR 25 1939

Received at London Office

to of writing Report 25th March 1939 When handed in at Local Office 25th 3rd 39 Port of Glasgow
 Date, First Survey 15th 6th 38 Last Survey 14th March 1939
 Number of Visits 66

on the Single Twin Triple Quadruple Screw vessel BRITAMER
 Tons Gross 9975.74
Net 5931.62
 Built at Glasgow By whom built Barclay Curle & Co Ltd Yard No. 670 When built 1939-3rd inst.
 Made at Glasgow By whom made Barclay Curle & Co Ltd Engine No. 670 When made 1939-3rd inst.
 Boilers made at Glasgow By whom made Barclay Curle & Co Ltd Boiler No. 670 When made 1939-3rd inst.
 Horse Power 4750 Owners Messrs Hall & Peterson Port belonging to Oslo
 Horse Power as per Rule 861 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 for which vessel is intended Oil Tanker

ENGINES, &c.—Type of Engines Doxford Opposed piston 2 or 4 stroke cycle 2 Single or double acting Single

Pressure in cylinders 600 lb. Diameter of cylinders 640 mm Length of stroke 2320 mm No. of cylinders 4 No. of cranks 4

Indicated Pressure 94.5 lb. Flywheel dia. 2400 mm Weight 4.25 tons Means of ignition Comp. Kind of fuel used Heavy oil

Bearings, adjacent to the Crank, measured from inner edge to inner edge 1300 mm Is there a bearing between each crank Yes

Revolutions per minute 114 Crank pin dia. 500 mm Crank Webs Mid. length breadth 910 mm Thickness parallel to axis 285 mm

Journal dia. as per Rule 500 mm as fitted 500 mm Mid. length thickness 215 mm Thickness around eyehole 219 mm

Propeller Shaft, diameter as per Rule 500 mm as fitted 500 mm Intermediate Shafts, diameter as per Rule 19 3/4" as fitted 19 3/4" Thrust Shaft, diameter at collars as per Rule 500 mm as fitted 500 mm

Screw Shaft, diameter as per Rule 19" as fitted 19" Is the tube shaft fitted with a continuous liner Yes

Liners, thickness in way of bushes as per Rule 3/8" as fitted 3/8" Thickness between bushes as per Rule 3/4" as fitted 3/4" Is the after end of the liner made watertight in the Yes

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

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

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 Yes

No If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 5'-11 3/8"

Propeller, dia. 14'-0" Pitch 12'-6" No. of blades 4 Material Brass whether Moveable Yes Total Developed Surface 100 sq. feet

Method of reversing Engines Comp. air - Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Yes

Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with Yes

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

Eng Water Pumps, No. One F.W. 260 mm dia x 450 mm stroke Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Pumps worked from the Main Engines, No. Two - Fuel Valve cooling water 4 1/2 x 3 1/4" Duplex Diameter Stroke Can one be overhauled while the other is at work Yes

connected to the Main Bilge Line No. and Size One 9" x 8" x 10" One 4" x 4" x 8" in No. 2 hold; Main H. room suction 6" x 5 1/2" x 6" For suction

How driven Steam One 9" x 8 1/2" x 10"

cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping Yes

ements Yes

ast Pumps, No. and size One - 12" x 16" x 24" (255 ton) Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One 130 mm dia x 450 mm stroke

Two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Yes

os, No. and size:—In Machinery Spaces 3 @ 3 1/2" 1 @ 2 1/2" Off 3 @ 3 1/2" 1 @ 2 1/2" Off 3 @ 3 1/2" 1 @ 2 1/2" Off 3 @ 3 1/2" 1 @ 2 1/2" Off

olds, &c. For hold 2 @ 2 1/2" No. 2 Off 1 @ 4" For hold 2 @ 2 1/2" No. 2 Off 1 @ 4" For hold 2 @ 2 1/2" No. 2 Off 1 @ 4" For hold 2 @ 2 1/2" No. 2 Off 1 @ 4"

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 5 1/2" 2 @ 3" oily bilge

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces Yes

rom easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line above

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

hat pipes pass through the bunkers Yes How are they protected Yes

hat pipes pass through the deep tanks No. 2 Off 1 aft Off suction pipe Have they been tested as per Rule Yes

re all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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 Yes

partment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

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

air Compressors, No. Two No. of stages 3 Diameters 1 1/2" - 2 1/2"; 9 1/2" Stroke 7 Driven by Steam Engine

Auxiliary Air Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes

Small Auxiliary Air Compressors, No. Yes No. of stages Yes Diameters Yes Stroke Yes Driven by Yes

What provision is made for first Charging the Air Receivers Steam driven Compressor

evacuating Air Pumps, No. One Diameter 1550 mm Stroke 1320 mm Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule as fitted Yes No. Yes Position Yes

Are the Auxiliary Engines been constructed under special survey Steam driven Auxiliaries Is a report sent herewith Yes

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, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure by Rules *✓*
Actual *✓*
Starting Air Receivers, No. *2* Total cubic capacity *350 cuft.* Internal diameter *5'-0"* thickness *1 5/16"*
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *Steel 29-33 1/2* Working pressure by Rules *601-16*
Actual *600-16*

IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*
Is the donkey boiler intended to be used for domestic purposes only *No*

PLANS. Are approved plans forwarded herewith for Shafting *Yes* Receivers *Yes* Separate Fuel Tanks *Yes*
(If not, state date of approval)
Donkey Boilers *Yes* General Pumping Arrangements *Yes* Pumping Arrangements in Machinery Space *Yes*
Oil Fuel Burning Arrangements *Yes*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes - as per attached list.*
State the principal additional spare gear supplied



The foregoing is a correct description,

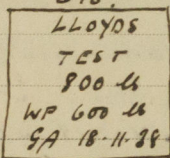
FOR BARCLAY, CURLE & CO., LTD

Alexander Macnall

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 1938 June: 15 July: 5-11-28 Aug: 1-2-5-11-15-23-30-31 Sep: 9-23-27 Oct: 4-10-11-14-17-21-24-26-28 Nov: 1-3-8-9-11-15-17-18-22-23-24-25-28 Dec: 1-2-5-7-9-12-16-19-21-27-30 (1939) Jan: 9-12-16-18-20-23-26
During erection on board vessel--
Total No. of visits 66 Feb: 6-10-14-17-20-22-28 Mar: 8-10-13-14

Dates of Examination of principal parts—Cylinders 22-11-38 Covers *✓* Pistons 28-11-38; 7-12-38 Rods 28-11-38; 7-12-38 Connecting rods 27-12-38
Crank shaft 16-12-38 Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts 16-12-38 Tube shaft *✓*
Screw shaft 16-12-38 Propeller 23-11-38 Stern tube 12-12-38 Engine seatings 26-1-39 Engines holding down bolts 6-2-39
Completion of fitting sea connections 23-1-39 Completion of pumping arrangements 28-2-39 Engines tried under working conditions 14-3-39
Crank shaft, Material *S.M. Eng. Steel* Identification Mark *640344 N° 5A* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material Identification Mark Intermediate shafts, Material *S.M. Eng. Steel* Identification Marks *N° 2434-1666 5A*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S.M. Eng. Steel* Identification Mark *N° 2436 5A*
Identification Marks on Air Receivers *✓*



Is the flash point of the oil to be used over 150° F. *Yes*
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Oil Tanker* 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 of this vessel has been built under special survey and in accordance with the Rules and approved plans*

The materials and workmanship are good. It has been efficiently secured in position on board, tried under working conditions and found satisfactory.

The machinery is eligible in my opinion to be classed in the Register Book with notation + L.M.C. 3-39-C.L. 2DB-1804

The amount of Entry Fee .. £ 6 : - :
Special .. £ 118 : 1 :
Warranty Fee .. £ 12 : 12 :
Donkey Boiler Fee .. £ 4 : 4 :
Travelling Expenses (if any) £ : :
When applied for 28 MAR 1939
When received, 29-4-1939

Committee's Minute GLASGOW

Assigned -/- Lmc 3.39 2.08 1804

G. Anderson
Engineer Surveyor to Lloyd's Register of Shipping.

