

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 32077

Date of writing Report

When handed in at Local Office

- 3 MAY 1937

Port of

Received at London Office

MAY - 4 1937

No. in Survey held at
Reg. Book.

Date, First Survey

Last Survey

Number of Visits

Single
on the ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel

M.V. "BRITISH DILIGENCE"

Tons { Gross 8297
Net 4935

Built at

By whom built

L. O. Swan Hunter, Glasgow Richardson Yard No. 1508 When built 1934.

Engines made at

By whom made

Wm. Bayfrd & Sons Ltd Engine No. 194 When made 1934.

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 2850

Owners

British Tanker Co Ltd Port belonging to

Nom. Horse Power as per Rule 684

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c. Type of Engines Approved piston and/or injection 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 540 lb/sq. in. Diameter of cylinders 600 in. Length of stroke 940 in. No. of cylinders 4 No. of cranks 4

Mean Indicated Pressure 84 lb/sq. in. Lower 1340 in. (3 throw)

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 940 in. Is there a bearing between each crank between each 3 throw.

Revolutions per minute 94 Flywheel dia. 2050 in. Weight 62 cwt. Means of ignition Compression Kind of fuel used

Crank Shaft, dia. of journals as per Rule 425 in. Crank pin dia. 450 in. Crank Webs Mid. length breadth 650 in. Thickness parallel to axis 255 in.

Flywheel Shaft, diameter as fitted 450 in. Intermediate Shafts, diameter as per Rule 425 in. Thrust Shaft, diameter at collars as fitted 450 in.

Tube Shaft, diameter as per Rule 450 in. Screw Shaft, diameter as per Rule 450 in. Is the tube shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule 25 in. Thickness between bushes as per Rule 25 in. 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 Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes. Means of lubrication

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

non-conducting material Yes. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

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

Bilge 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

Is the 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

Ballast Pumps, No. and size Power Driven 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, No. and size:—In Machinery Spaces In Pump Room

In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

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

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

Are they fixed sufficiently 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

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks 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

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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Main Air Compressors, No. No. of stages Diameters Stroke Driven by

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

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

Scavenging Air Pumps, No. One Diameter 1960 in. Stroke 610 in. Driven by

Auxiliary Engines crank shafts, diameter as per Rule 425 in. Position

as fitted

as per Rule

No.

Position

worked from

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No.

Position

004755 - 004760 - 0134

Lloyd's Register
Foundation

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule.

Can the internal surfaces of the receivers be examined and cleaned.

Is a drain fitted at the lowest part of each receiver

High Pressure 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.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Actual

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 Shifting 20/11/35
(If not, state date of approval)

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied. *Yes.*

State the principal additional spare gear supplied

One cylinder liner & jacket Complete, one starting air non-return valve Complete, one cyl. relief valve Complete, 4 Scavenge pump Suct. & del. valve discs (halves), two fuel pump handles Complete with Suct. & del. valves, one intermediate cross head with Strut & nut, 1 full crank liner & Duction tappet for fuel pump, four fuel valves Complete, 1 roller Chain for Camshaft drive.

The foregoing is a correct description.

WILLIAM DOXFORD & SONS, Limited.

Manufacturer.

Director.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

1936. Dec. 10. 1937. Jan. 5, 7, 12, 15, 19, 21, 22, 25, 26, 28, 29. Feb. 1, 2, 4, 5, 8, 9, 12, 15, 17, 18, 23, 24, 25. Mar. 1, 9, 11, 12, 15, 16, 17, 18, 19, 22, 23, 25, 31. Apr. 2, 4, 8, 9, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 28

Dates of Examination of principal parts—Cylinders 30/12/36 5/1/37

Crank shaft 9/4/37 Flywheel shaft as crank Thrust shaft as crank

Screw shaft Propeller Stern tube

Completion of fitting sea connections Completion of pumping arrangements

Crank shaft, Material *Engot Steel* Identification Mark *N° 11482*

Thrust shaft, Material *as crank* Identification Mark *as crank*

Tube shaft, Material Identification Mark

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

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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 *M/V "BRITISH FAME"*

General Remarks (State quality of workmanship, opinions as to class, &c.)

This machinery has been built under Special Survey in accordance with the Rules of the Society & the Secretary's letter E 25/4/34.

The materials & workmanship are good.

The engine has been tried under full load conditions on the test bed with satisfactory results & has been despatched to Messrs. Swan Hunter & Wigham Richardson Ltd. of Wallsend for installation on board the vessel, after which it will be eligible, in my opinion, to have notation LMC (with date) oil fuel in the Register Book.

These engines have been satisfactorily installed on board & tried under working conditions at Newcastle on 29th June 1937.

The amount of Entry Fee .. £ 6 : -

4/5 Special ... £ 84 : 10

Donkey Boiler Fee ... £ 12 : 12

Travelling Expenses (if any) £

Committee's Minute

When applied for,

3 MAY 1937

When received,

22.6.37

FRI 18 JUN 1937

Engineer Surveyor to Lloyd's Register of Shipping.

J. St. Fraser.

See NWC. J.E. 95789

Assigned

See NWC. J.E. 95789

See NWC. J.E. 95789

See NWC. J.E. 95789

See NWC. J.E. 95789

See NWC. J.E. 95789