

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 109646.

Received at London Office OCT - 6 1937

LIVERPOOL

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

Port of

No. in Survey held at  
Reg. Book.

Date, First Survey 9th Nov/36 Last Survey 17th Sept/37  
Number of Visits 123

Single  
on the Tonnage  
Triple  
Quadruple

Screw vessel

Aldersdale

Tons Gross 8402  
Net 5009

Built at Birkenhead By whom built Cammell Laird & Co Ltd Yard No. 1025 When built 1937

Engines made at Sunderland By whom made William Dorman & Co Ltd Engine No. 200 When made 1937

Donkey Boilers made at Birkenhead By whom made Cammell Laird & Co Ltd Boiler No. 1025 When made 1937

Brake Horse Power 2850 Owners Admiralty Port belonging to London

Nom. Horse Power as per Rule 687 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended

IL ENGINES, &c. Type of Engines Opposed piston Airless Injection 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 570 lb/sq in Diameter of cylinders 600 mm Length of stroke 440 mm No. of cylinders 4 No. of cranks 4

Mean Indicated Pressure 84 lb/sq in Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

Revolutions per minute Flywheel dia. Means of ignition Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Mid. length thickness Thickness parallel to axis shrunk Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted 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

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

propeller, dia. 16'9" Pitch 13'0 1/2" No. of blades 4 Material bronze whether Moveable no Total Developed Surface 95 sq. feet

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

Thickens of cylinder liners 25 mm 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. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. one Diameter 7' x 8' x 8' duplex Stroke 10' x 12' x 10' duplex

Pumps connected to the Main Bilge Line No. and Size 2 large secondary 7' x 8' x 8' duplex How driven steam

the 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

arrangements. one 10' x 12' x 10' Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one 8' x 7' x 18' steam

allast Pumps, No. and size one 10' x 12' x 10' Are two independent means arranged for circulating water through the Oil Cooler Yes

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 3 @ 3 1/4" In Pump Room 2 - 4"

Holds, &c. yes Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one - 4 1/2" - one 6" emergency

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

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 - one 2" (refrig)

Are 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

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

How are they protected yes Have they been tested as per Rule yes

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

apartment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

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

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

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 11 1/2 x 9 1/2 x 7 1/2 Stroke 7" Driven by 55 SHP steam engine

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

Exhausting Air Pumps, No. one Diameter 1960 mm Stroke 610 mm Driven by cross from main engine

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



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.

Yes

Is a drain fitted at the lowest part of each receiver.

Yes

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

by Rules

Actual

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

IS A DONKEY BOILER FITTED?

one oil fired  
the waste heat oil fired

If so, is a report now forwarded?

Yes

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

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

As per Sunderland Rpt.

FOR AND ON BEHALF OF  
The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

Dates of Examination of principal parts—Cylinders  
Covers  
Pistons  
Rods  
Connecting rods  
Crank shaft  
Flywheel shaft  
Thrust shaft  
Intermediate shafts  
Tube shaft  
Screw shaft  
Propeller  
Stern tube  
Engine seatings  
Engines holding down bolts  
Completion of fitting sea connections  
Completion of pumping arrangements  
Engines tried under working conditions  
Crank shaft, Material  
Identification Mark  
Flywheel shaft, Material  
Identification Mark  
Thrust shaft, Material  
Identification Mark  
Intermediate shafts, Material  
Identification Marks  
Tube shaft, Material  
Identification Mark  
Screw shaft, Material  
Identification Mark

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

Yes

If so, have the requirements of the Rules been complied with

Yes

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

British Fortitude Ls. Rpt 1089

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

This Machinery has been satisfactorily fitted on board and is in accordance with the Rules and the approved plans. The workmanship is good throughout. Upon completion, it was examined under full working conditions during sea trials and found satisfactory, and is eligible in my opinion for classification in Register book with record of 4 MC 9.37 and 1500 H.P.

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

The amount of Entry Fee .. £ : :  
Special 15.75 Fee. £ 21. : 17.6  
Donkey Boiler Fee ... £ 4 : 4.0  
Travelling Expenses (if any) £ : :  
When applied for, 29 SEP 1937  
When received, 11.10.1937

Committee's Minute

Assigned + 6 MC 9.37. Oil Engg.  
T.S. (Ch.)

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation