

REPORT ON OIL ENGINE MACHINERY.

No. 56643

-4 MAR '36

Received at London Office
 Date, First Survey 29. 2. 1936 Port of Glasgow
 Date, Last Survey 24. 6. 35 Last Survey 5-3-1936
 Number of Visits 110

Writing Report... When handed in at Local Office
 in Survey held at Glydebank
 on the Single Screw vessel "Bonanchee"
 Tons { Gross 6837
 Net 3967
 Built at Glydebank By whom built John Brown & Co. Ltd Yard No. 544 When built 1936
 Engines made at " By whom made " " " Engine No. " When made "
 Key Boilers made at " By whom made " " " Boiler No. " When made "
 Make Horse Power 3300 Owners Anglo American Oil Co. Ltd Port belonging to Glasgow
 Horse Power as per Rule 735 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 for which vessel is intended Oil in Gulf. North Atlantic 91576

ENGINES, &c.—Type of Engines Dosford 2476 2 or 4 stroke cycle 2 Single or double acting Single
 Mean pressure in cylinders 568 Diameter of cylinders 620 mm Length of stroke 1340 mm No. of cylinders 4 No. of cranks 4-3 throw
 Bearings, adjacent to the Crank, measured from inner edge to inner edge 1943 mm Is there a bearing between each crank yes
 Revolutions per minute 100 Flywheel dia. FOR 2050 Weight 5 tons Means of ignition Comp Kind of fuel used Heavy Oil
 Shaft, dia. of journals as fitted 460 mm Crank pin dia. 460 mm Crank Webs Mid. length breadth 650 mm Thickness parallel to axis 260 mm
 as fitted 460 mm Mid. length thickness 260 mm Thickness around eye-hole 200 mm
 Crank Shaft, diameter as per Rule 460 mm Intermediate Shafts, diameter as fitted 18 1/8" Thrust Shaft, diameter at collars as per Rule 460 mm
 as fitted 460 mm Is the tube shaft fitted with a continuous liner no
 Shaft, diameter as per Rule none Screw Shaft, diameter as per Rule 18 1/8" Is the tube shaft fitted with a continuous liner no
 as fitted none as fitted 18 1/8"

Liners, thickness in way of bushes as per Rule none Thickness between bushes as per Rule Is the after end of the liner made watertight in the
 as fitted none as fitted none If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes
 Is 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 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
 If so, state type Vickers Length of Bearing in Stern Bush next to and supporting propeller 69"
 Diameter, dia. 17'-0" Pitch 14'-9" No. of blades 4 Material Brass whether Moveable no Total Developed Surface 90 sq. feet
 Method of reversing Engines sliding cam shaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication oil
 Thickness of cylinder liners 25 1/2" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
 insulating 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 not over

Sea Water Pumps, No. F.W. 2, E. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel no
 special arrangements are made for dealing with cooling water if discharged into bilges Discharged overboard. (S.W. only used for guides)
 Pumps worked from the Main Engines, No. 1 Diameter Kolor Stroke 120 tons Can one be overhauled while the other is at work yes
 Pumps connected to the Main Bilge Line { No. and Size 1- Ballast 250 tons per hr, 1 Bilge 120 tons per hour
 How driven Steam Steam
 Main Pumps, No. and size 1- 250 tons per hr Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 Rotary 49 tons per hr
 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 1/2" In Pump Room For 1-2 1/2"
Chain locker flat 1-2 1/2", four feet flat 1-2 1/2", 2" deck 2-2 1/2" SMID 2-2 1/2"
AFT. 2-2 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-8", 2-6"
 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 Both
 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
 Do pipes pass through the bunkers none How are they protected yes
 Do pipes pass through the deep tanks none 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
 compartment to another yes Is the Shaft Tunnel watertight none Is it fitted with a watertight door yes worked from yes
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork steel
 Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 11 1/2"-9 1/4"-2 3/4" Stroke 6" Driven by steam
 Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 11 1/2"-9 1/4"-2 3/4" Stroke 6" Driven by steam
 All Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 11 1/2"-9 1/4"-2 3/4" Stroke 6" Driven by steam
 Ventilating Air Pumps, No. 1-D.A. Diameter TOP 15307-649 mm Stroke 1130 mm Driven by Main Engine
BOT 15307-120 mm

Auxiliary Engines crank shafts, diameter as per Rule No. 1 Position yes
 as fitted yes
 RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Are 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. 2 Cubic capacity of each 165 Internal diameter 48" thickness 1 1/8"
 Seamless, lap welded or riveted longitudinal joint T.R.D.B.S Material 2 Range of tensile strength 29-33 Working pressure Actual 600
by Rules 27-9-35
 Starting Air Receivers, No. 1 Total cubic capacity 165 Internal diameter 48" thickness 1 1/8"
 Seamless, lap welded or riveted longitudinal joint yes Material T.R.D.B.S Range of tensile strength 29-33 Working pressure Actual 600
 by Rules 27-9-35



IS A DONKEY BOILER FITTED? *Yes two*

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*
(If not, state date of approval)

Receivers *Yes*

Separate Tanks *✓*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *Yes*

SPARE GEAR.

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

State the principal additional spare gear supplied *One screw shaft, one propeller, 2 cylinder liners, 2 pistons, etc.*

John Brown & Company, Limited.

The foregoing is a correct description.

Robert
Gluebank Street Manufacturer.

Dates of Survey while building
During progress of work in shops-- *1935 June: 24, 26, 28 July: 1, 2, 23, 24, 26, 29, 31 Aug: 1, 5, 7, 8, 13, 15, 19, 21, 23, 27, 28*
During erection on board vessel-- *Sep: 2, 3, 5, 6, 18, 25, 27 Oct: 2, 3, 4, 7, 10, 11, 14, 16, 18, 21, 22, 23, 24, 25, 28 Nov: 1, 4, 5, 7, 8*
Total No. of visits-- *110 - 10, 13, 14, 15, 17, 20, 21, 23, 24, 27, 28, 31 Feb: 3, 4, 7, 10, 12, 14, 17, 19, 20, 21, 24, 26, 27, 28 Mar: 2, 3, 10*

Dates of Examination of principal parts—Cylinders: *15-9-35* Covers *✓* Pistons *2-10-35* Rods *2-10-35* Connecting rods *2-10-35*

Crank shaft *2-9-35* Flywheel shaft *2-9-35* Thrust shaft *2-9-35* Intermediate shafts *5-9-35* Tube shaft *✓*

Screw shaft *7-10-35* Propeller *27-14-35* Stern tube *4-10-35* Engine seatings *24-10-35* Engines holding down bolts *4-4-36*

Completion of fitting sea connections *3-12-36* Completion of pumping arrangements *28-2-36* Engines tried under working conditions

Crank shaft, Material *S* Identification Mark: *1006, 10061, 10027, 10028, 10029, 9947* Flywheel shaft, Material *S* Identification Mark *9984*

Thrust shaft, Material *S* Identification Mark *9984* Intermediate shafts, Material *S* Identification Marks *112, 98*

Tube shaft, Material *none* Identification Mark *✓* Screw shaft, Material *S* Identification Mark *253*

Is the flash point of the oil to be used over 150° F. *Yes* *278 spec*

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? *not desired*

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 in accordance with the approved plan and the Society's Rules and requirements. The materials and workmanship are good it has been securely fitted on board and satisfactorily tried under working conditions and in my opinion is eligible for record + L. 17. C. 3-36.*

29/2/36

The amount of Entry Fee	£ 6 : 0 : 0	When applied for, <i>2-MAR 1936</i>
Special	£ 111 : 15 : 0	
2-air recumers	£ 4 : 4 : 0	
1-Donkey Boiler Fee	£ 13 : 8 : 0	
1- " " "	£ 6 : 6 : 0	
Travelling Expenses (if any)	£ 72 : 12 : 0	<i>4-3-1936</i>
Special Elec Welding		<i>5/3</i>
Committee's Minute	GLASGOW	<i>3-MAR 1936</i>

Jas Cairns,
Engineer Surveyor to Lloyd's Register of Shipping.



Assigned + L.M.C. 3,36

GLASGOW

(The Surveyors are requested not to write on or below the space for Committee's Minute.)