

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 5. 3. 1936
 Number of Visits 110

Survey held at Clydebank
 Book.

on the "Comanche" Single Screw vessel
 Tons Gross 6837
 Net 3967

By whom built John Brown & Co. Ltd. Yard No. 544 When built 1936

By whom made " " " " Engine No. " When made "

By whom made " " " " Boiler No. " When made "

Owners Anglo American Oil Co. Ltd. Port belonging to Glasgow

Horse Power as per Rule 3300 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

for which vessel is intended Oil in Bulk. North Atlantic 9176

ENGINES, &c.—Type of Engines Dorsford 2476 2 or 4 stroke cycle 2 Single or double acting Single

um 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

tions per minute 100 Flywheel dia. 2352 mm Weight 5 tons AFT. Means of ignition Comp. Kind of fuel used Heavy Oil

Shaft, dia. of journals 460 mm Crank pin dia. 460 mm Crank Webs 260 mm Mid. length thickness 260 mm Thickness parallel to axis 260 mm

eel Shaft, diameter 460 mm Intermediate Shafts, diameter 18 1/8" Thrust Shaft, diameter at collars 460 mm

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

er 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

er boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

Yes If so, state type Vickers Length of Bearing in Stern Bush next to and supporting propeller 69"

eller, dia. 17'-0" Pitch 14'-9" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 90 sq. feet

od of reversing Engines Sliding cam shaft Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

iced 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

ducting 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

ng 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 120 mm Stroke 120 mm Can one be overhauled while the other is at work

ps connected to the Main Bilge Line No. and Size 1- Ballast 250 tons per hr, 1 Bilge 120 tons per hour

st 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

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

os, No. and size:—In Machinery Spaces 3-3 1/2" In Pump Room 1-2 1/2"

olds, &c. Chain locker flat 1-2 1/2", four peak flat 1-2 1/2", 2nd deck 2-2 1/2"

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-8", 2-6"

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

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

hey 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

hey 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

pipes pass through the bunkers none How are they protected

pipes pass through the deep tanks none Have they been tested as per Rule

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

e 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

artment to another Yes Is the Shaft Tunnel watertight none Is it fitted with a watertight door worked from

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

n Air Compressors, No. 2 No. of stages 3 Diameters 11 1/2"-9 1/4"-2 3/4" Stroke 6" Driven by steam

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

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

venting Air Pumps, No. 1-D.A. Diameter 1530 mm Stroke 1130 mm Driven by main engine

iliary Engines crank shafts, diameter as per Rule Position

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

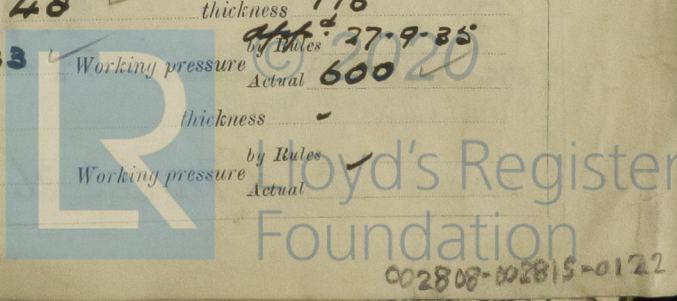
n the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes

gh 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

arting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure Actual



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, 25, 26, 27, 30, 31 (1936) Jan: 2, 3, 10*

Dates of Examination of principal parts—Cylinders *15-8-35* 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 *27-12-35* Stern tube *4-10-35* Engine seatings *24-10-35* Engines holding down bolts *4-2-36*

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 sp*

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.M.C. 3-36.*

29/2/36

The amount of Entry Fee .. £ 6 : 0 : 0 When applied for, *2-MAR 1936*
Special .. £ 111 : 15 : 0
Donkey Boiler Fee .. £ 4 : 4 : 0
Travelling Expenses (if any) .. £ 13 : 8 : 0 When received, *4-3-1936*
Special Glue Welding .. £ 6 : 6 : 0
Committee's Minute *GLASGOW 3-MAR 1936*

Assigned + L.M.C. 3,36

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



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Foundation