

REPORT ON OIL ENGINE MACHINERY.

No. 54789

1 AUG 1934

1 OCT 1934

Received at London Office

Date of writing Report 19 24. 7. 19 34 Port of Glasgow

No. in Survey held at Reg. Book. Glasgow Date, First Survey 22. 11. 33 Last Survey 7. July 1934 Number of Visits 45

on the Single Twin Triple Quadruple Screw vessel *Juno Workman Clark yard No. 533* Tons Gross Net

Built at Glasgow By whom built *British American Ltd.* Yard No. *168/70* When built 1934

Engines made at Glasgow By whom made *British American Ltd.* Engine No. When made 1934

Donkey Boilers made at By whom made Boiler No. When made

Horse Power *32450 BHP* Owners Port belonging to

Horse Power as per Rule *386* Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

for which vessel is intended

ENGINES, &c. Type of Engines *British Polar* 2 or 4 stroke cycle *2* Single or double acting *Single*

pressure in cylinders *400 lbs* Diameter of cylinders *200%* Length of stroke *142%* No. of cylinders *6* No. of cranks *6*

icated Pressure *95* Flywheel dia. *1050%* Weight *694 tons* Means of ignition *Comp.* Kind of fuel used *Distil oil*

varings, adjacent to the Crank, measured from inner edge to inner edge *360%* Is there a bearing between each crank *Yes*

as per minute *340* Crank pin dia. *160%* Crank Webs Mid. length breadth *214%* Thickness parallel to axis

Shaft, dia. of journals as per Rule *158%* as fitted *160* Intermediate Shafts, diameter as per Rule as fitted

Thrust Shaft, diameter at collars as per Rule as fitted

Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted

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

er 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

ners 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

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

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

of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Means of lubrication

Thickness of cylinder liners *195%* Are the cylinders fitted with safety valves *Yes* Are the exhaust pipes and silencers water cooled or lagged with

cting 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

Water Pumps, No. *10* *120% x 60%* each pump. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

umps worked from the Main Engines, No. *None* Diameter Stroke Can one be overhauled while the other is at work

connected to the Main Bilge Line No. and Size How driven

oling 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

ents

Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

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

No. and size: In Machinery Spaces In Pump Room

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

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

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

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

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

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

oes pass through the bunkers How are they protected

oes pass through the deep tanks Have they been tested as per Rule

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

angement 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

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

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

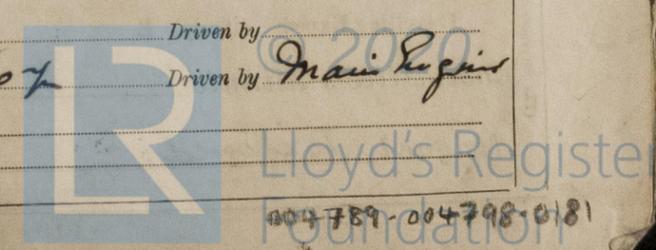
ir Compressors, No. No. of stages Diameters Stroke Driven by

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

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

ging Air Pumps, No. *One DA* Diameter *420%* Stroke *240%* Driven by *Main Engine*

uxiliary Engines crank shafts, diameter as per Rule as fitted



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AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yps.*
 Can the internal surfaces of the receivers be examined and cleaned *Yps.* Is a drain fitted at the lowest part of each receiver *Yps.*
High Pressure Air Receivers, No. *One* Cubic capacity of each *3.5 cu ft.* Internal diameter *14.5"* thickness *1/2"*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *S* Range of tensile strength *28-32 tons* Working pressure by Rules *930* ✓
Starting Air Receivers, No. *See above* 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?

Is the donkey boiler intended to be used for domestic purposes only _____ If so, is a report now forwarded? _____
PLANS. Are approved plans forwarded herewith for Shafting *Y.A. 33* Receivers *29.10.31* Separate Tanks _____
 (If not, state date of approval) Donkey Boilers _____ General Pumping Arrangements _____ Oil Fuel Burning Arrangements _____

SPARE GEAR.

Has the spare gear required by the Rules been supplied _____

State the principal additional spare gear supplied _____

As per attached list.

The foregoing is a correct description,

John Roger **BRITISH AUXILIARIES LTD.** Manufacturer. X

Dates of Survey while building
 During progress of work in shops-- 1933 Nov: 22. 25 Dec: 1. 6. 20. 26. 29 (1934) Jan: 4. 9. 11. 16. 29. 31 Feb: 6. 8. 12. 16. 26 Mar: 15
 During erection on board vessel-- Apr: 5. 9. 13. 25 May: 2. 4. 8. 14. 16. 17. 18. 23. 25. 29. 31 June: 5. 8. 11. 12. 14. 18. 20. 27 July: 5. 6. 7
 Total No. of visits *45*

Dates of Examination of principal parts—Cylinders *25. 5. 34* Covers *18. 5. 34* Pistons *16. 5. 34* Rods _____ Connecting rods *13. 4. 34*
 Crank shaft *25. 4. 34* 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 *S. On Imp. Steel* Identification Mark *9193-9194-9197* Flywheel shaft, Material _____ Identification Mark _____
 Thrust shaft, Material _____ Identification Mark *3948. 3949. 3954* 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. *Yps.*
 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 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 *Yps.* If so, state name of vessel *M.V. "Abscon"*

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

These Auxiliary Engines have been built under special licence and in accordance with the Rules. The materials and workmanship are good on completion they have been run on the bench at full power with Satisfactory results.

The engines have been forwarded to Belfast for fitting on board.

The Auxiliary engines have been efficiently installed on the vessel in the wings of the main motor room. They have been tried out under working conditions with satisfactory results and the vessel is eligible, in my opinion, for classification in the Society's Register Book.

The amount of Entry Fee .. £ : :
 Special £ *35 : 12* : :
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : :
 Committee's Minute *GLASGOW 31 JUL 1934*

John Rundle
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 12 OCT 1934

See Bel. F.C. 11372

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

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