

## REPORT ON OIL ENGINE MACHINERY.

No. 54789

-1 AUG 34

-1 OCT 1934

Received at London Office

Date of writing Report

19

When handed in at Local Office

24. 7. 1934

Port of

Glasgow

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

22. 11. 33

Last Survey

7<sup>th</sup> July 1934

Number of Visits

45

Single  
Twin  
Triple  
Quadruple  
Screw vessel

Jusio Workman Blackford No. 633

533

Tons  
Gross  
Net

Built at

By whom built

Yard No. 168/70

When built

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 30450 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, &amp;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 250%

Length of stroke 420%

No. of cylinders 6

No. of cranks 6

Indicated Pressure 95%

Bearings, adjacent to the Crank, measured from inner edge to inner edge 360%

Is there a bearing between each crank

Yes

Revolutions per minute 340

Flywheel dia. 1050%

Weight 694 tons

Means of ignition Comp.

Kind of fuel used Diesel oil

Shaft, dia. of journals as per Rule 158%

as fitted 160%

Crank pin dia. 160%

Crank Webs

Mid. length breadth 214%

Mid. length thickness 90%

Thickness parallel to axis

Thickness around eyehole

Shaft, diameter 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

Is the tube screw shaft fitted with a continuous liner

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

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

If 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 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

If so, state type

Length of Bearing in Stern Bush next to and supporting propeller

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

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 Eng. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. 2000 Diameter

Stroke

Can one be overhauled while the other is at work

connected to the Main Bilge Line

No. and Size

How driven

Bilge 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

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

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 mud-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

Do they pass through the bunkers

How are they protected

Do they 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

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

space to another

Is the Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

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

Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Suctioning Air Pumps, No. One DA

Diameter

420%

Stroke

240%

Driven by

Main Engine

Auxiliary Engines crank shafts, diameter as per Rule

as fitted

Lloyd's Register

004789-004798-0181



**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 *4.5"*

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*

Actual *1450*

**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

(If not, state date of approval)

*1.4.33*

Receivers

*29.10.31*

Separate Tanks

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.

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

Crank shaft *25.4.34* Flywheel shaft

Thrust shaft

Intermediate shafts

Connecting rods *13.4.34*

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 *SON Inpt 110*

Identification Mark *9193-9194-9199*

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. *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~~ *engine* duplicate of a previous case *Yps.* If so, state name of vessel *MS. "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 first class. 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) £ :

When applied for,

*31 JUL 1934*

When received,

*6.10.1934*

Committee's Minute *GLASGOW 31 JUL 1934*

Assigned *Deferred.*

*John Rundle*

Engineer Surveyor to Lloyd's Register of Shipping.

*FRI. 12 OCT 1934*

*See Bel. 76. 11372*

© 2020

Lloyd's Register Foundation