

4b.

## REPORT ON OIL ENGINE MACHINERY.

Received at London Office

Writing Report 19 — When handed in at Local Office 10. 8. 10 38 Port of Glasgow  
Date, First Survey 20. 6. 38 Last Survey 8<sup>th</sup> Aug. 1938  
Number of Visits 11  
Survey held at Leith  
Book. Single Twin Triple Quadruple Screw vessel Purvis  
Tons { Gross 927:  
Net 423:  
By whom built Messrs Henry Robb Ltd Yard No. 273 When built 1938  
By whom made British Auxiliaries Ltd Engine No. 307/8 When made 1938  
Boiler No. When made  
Boilers made at Glasgow  
Horse Power 740 Owners Anchors Shipping & Foundry Co Ltd Port belonging to Nelson N.2  
Horse Power as per Rule 134 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
For which vessel is intended

ENGINES, &c. — Type of Engines Heavy Oil M.4H.I Type 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 782 lbs. Diameter of cylinders 250<sup>7</sup>/<sub>16</sub> Length of stroke 420<sup>7</sup>/<sub>16</sub> No. of cylinders 8 No. of cranks 8  
Indicated Pressure 96.7

of bearings, adjacent to the Crank, measured from inner edge to inner edge 360<sup>7</sup>/<sub>16</sub> Is there a bearing between each crank Yes  
Revolutions per minute 375 Flywheel dia. 1150<sup>7</sup>/<sub>16</sub> Weight 1.17 tons Means of ignition Compression Kind of fuel used Diesel

Crank pin dia. 160<sup>7</sup>/<sub>16</sub> Crank Webs Mid. length breadth 214<sup>7</sup>/<sub>16</sub> Thickness parallel to axis skunk  
Thrust Shaft, diameter at collars as per Rule 105<sup>7</sup>/<sub>16</sub> as fitted 160<sup>7</sup>/<sub>16</sub>

Intermediate Shafts, diameter as per Rule as fitted  
Screw Shaft, diameter as per Rule as fitted  
Is the { tube } shaft fitted with a continuous liner { screw }

Thickness between bushes as per Rule as fitted  
Is the after end of the liner made watertight in the

liner boss 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  
Length of Bearing in Stern Bush next to and supporting propeller

If so, state type  
Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication  
Thickness of cylinder liners 19.5<sup>7</sup>/<sub>16</sub> 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.  
No. of Water Pumps, No. One each engine 120<sup>7</sup>/<sub>16</sub> x 60<sup>7</sup>/<sub>16</sub> D.A. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. One Diameter 85<sup>7</sup>/<sub>16</sub> Stroke 60<sup>7</sup>/<sub>16</sub> Can one be overhauled while the other is at work Yes

No. and Size  
How driven

cooling 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 Two 125 litres per Min. each.  
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
In Pump Room

Independent means arranged for circulating water through the Oil Cooler  
s, No. and size:—In Machinery Spaces  
In Pump Room

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size  
Are the Bilge Suctions in the Machinery Spaces

All the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes  
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  
Are they fitted with Valves or Cocks

Sea Connections fitted direct on the skin of the ship  
Are the Blow Off Cocks fitted with a spigot and brass covering plate

each fixed sufficiently high on the ship's side to be seen without lifting the platform plates  
Are the Blow Off Cocks fitted with a spigot and brass covering plate

each fitted with a Discharge Valve always accessible on the plating of the vessel  
How are they protected

pipes pass through the bunkers  
Have they been tested as per Rule

pipes 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  
Is the Shaft Tunnel watertight 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

Air Compressors, No. One No. of stages 2 Diameters 140<sup>7</sup>/<sub>16</sub> 55<sup>7</sup>/<sub>16</sub> L.P. Stroke 240<sup>7</sup>/<sub>16</sub> Driven by Main Engines

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

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

provision is made for first Charging the Air Receivers

enging Air Pumps, No. One Diameter 580<sup>7</sup>/<sub>16</sub> Stroke 240<sup>7</sup>/<sub>16</sub> Driven by Main Engines

Auxiliary Engines crank shafts, diameter as per Rule as fitted Position

the Auxiliary Engines been constructed under special survey Is a report sent herewith



**AIR RECEIVERS:**—Have they been made under survey *yes* State No. of Report or Certificate *46 Cent 35735*  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*  
Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*  
**Injection 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 *✓*  
**Starting Air Receivers, No.** *Two* Total cubic capacity *1600 litres* Internal diameter *25 1/2"* thickness *9/16"*  
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *Steel* Range of tensile strength *28/32 ton* Working pressure by Rules *35*  
Actual *35*

**IS A DONKEY BOILER FITTED?** If so, is a report now forwarded?

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

**PLANS.** Are approved plans forwarded herewith for Shafing *11-3-32* Receivers *23-5-32* Separate Fuel Tanks *✓*  
(If not, state date of approval)  
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 attached list*

The foregoing is a correct description,

BRITISH AUXILIARIES, LIMITED,

Manufacturer.

Dates of Survey while building  
During progress of work in shops--  
During erection on board vessel--  
Total No. of visits *11*

MANAGER. 1938 June: 20. 23. 29 July: 12. 13. 20. 27. 29 Aug: 1.

Dates of Examination of principal parts—Cylinders *23-6-38* Covers *1-7-38* Pistons *1-7-38* Rods *29/6/38* Connecting rods *29/6/38*  
Crank shaft *19-11-37* Flywheel shaft *and* Thrust shaft *7-6-37* 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 *Steel* Identification Mark *Lloyds No 9967 P.K. 19-11-37* Flywheel shaft, Material *and* Identification Mark *7601. MAR 26/38*  
Thrust shaft, Material *Steel* Identification Mark *510 823 E.R.B. 3-8-37* Intermediate shafts, Material *✓* Identification Marks *✓*  
Tube shaft, Material *✓* Identification Mark *455 783 E.R.B. 7-6-37* Screw shaft, Material *✓* Identification Mark *✓*  
Identification Marks on Air Receivers *No. 35735/1* *No. 35735/2*  
*LLOYDS Test* *LLOYDS Test*  
*555 lbs* *555 lbs*  
*W.P. 350 lbs* *W.P. 350 lbs*  
*12-5-38. T.M.* *12-5-38. T.M.*

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 *✓*

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 *✓*

If so, state name of vessel

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *These engines have been built under Special Survey in accordance with the Rules and approved plans. The material and workmanship are good. On completion they have been tried on the bench at full power with satisfactory results. This machinery is eligible in my opinion to be classed in the Register Book with notation + L.R.C. with date when fitted on board and tried under full working condition. They have been shipped to Messrs Henry Robb. Ltd. Leith for fitting on board their vessel No 273.*

The amount of Entry Fee *£ 3 0 0*

Special *£ 33-10-0*

Donkey Boiler Fee *£ 11 3 4*

Travelling Expenses (if any) *£ 1*

When applied for,

15 AUG 1938

When received,

3/11/1938

Committee's Minute

GLASGOW

16 AUG 1938

Assigned

*Deferred.*

Engineer Surveyor to Lloyd's Register of Shipping

TUE. 6 DEC 1938

© 2020

Lloyd's Register Foundation