

REPORT ON OIL ENGINE MACHINERY.

No. 19816
19 SEP 1934

Received at London Office

of writing Report **S.9** 1934 When handed in at Local Office **12th Sept. 1934** Port of **Liverpool**
in Survey held at **Liverpool** Date, First Survey **23rd May, 1934** Last Survey **4th SEPTEMBER, 1934**
Book. Number of Visits **35**

82 on the **Single** Twin Screw vessel **M/S 'Athalting'** Tons { Gross **9554**
Net **6019**
Built at **Newcastle** By whom built **Swan Hunter & Graham Richardson & Co** Yard No. **-** When built **1926**
Engines made at **Liverpool** By whom made **John & Nieuoud & Co** Engine No. **179** When made **1934**
Boilers made at **-** By whom made **-** Boiler No. **-** When made **-**
Indicated Horse Power **2500** Owners **United Motors Co Ltd** Port belonging to **Liverpool**
Net Horse Power as per Rule **709** Is Refrigerating Machinery fitted for cargo purposes **-** Is Electric Light fitted **-**
Made for which vessel is intended **Foreign 24 13/16" 51 3/16" Solidification**

ENGINES, &c. Type of Engines **Four cylinder Diesel (2 sets)** 4 stroke cycle **4** Single or double acting **Single**
Maximum pressure in cylinders **654 lb/sq** Diameter of cylinders **630 mm** Length of stroke **1800 mm** No. of cylinders **12** No. of cranks **12**
Pitch of bearings, adjacent to the Crank, measured from inner edge to inner edge **892 mm** Is there a bearing between each crank **yes**
Revolutions per minute **123** Flywheel dia. **1930 mm** Weight **1.82 tons** Means of ignition **Compression** Kind of fuel used **Diesel**
Crank Shaft, dia. of journals as per Rule **415 mm** as fitted **415 mm** Crank pin dia. **415 mm** Crank Webs Mid. length thickness **shrunk** Thickness parallel to axis **270 mm**
Wheel Shaft, diameter as per Rule **415 mm** as fitted **415 mm** Intermediate Shafts, diameter as per Rule **117/8"** Thrust Shaft, diameter at collars as fitted **15"**
Propeller Shaft, diameter as per Rule **117/8"** as fitted **117/8"** Is the tube shaft fitted with a continuous liner **yes**

Oil Liners, thickness in way of bushes as per Rule **as fitted** Thickness between bushes **as fitted** Is the after end of the liner made watertight in the stern tube **yes**
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **yes**
If 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**
If two 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 **air** Length of Bearing in Stern Bush next to and supporting propeller **46.8"**

Propeller, dia. **46.8"** Pitch **46.8"** No. of blades **3** Material **steel** whether Moveable **no** Total Developed Surface **46.8 sq. feet**
Method of reversing Engines **air** Is a governor or other arrangement fitted to prevent racing of the engine **yes** Means of lubrication **oil**
Thickness of cylinder liners **36/46 mm** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and casings 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 **yes**

Drinking Water Pumps, No. **one on each engine** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **yes**
Ice Pumps worked from the Main Engines, No. **None** Diameter **-** Stroke **-** Can one be overhauled while the other is at work **yes**
Pumps connected to the Main Bilge Line { No. and Size **-**
How driven **-**
Oil Pumps, No. and size **one on each engine 7 dia 8 stroke**
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 **0/0**
Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **yes** 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 **yes**
Sea Connections fitted direct on the skin of the ship **yes** Are they fitted with Valves or Cocks **yes**
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 **yes**
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**
How are they protected **yes**
Have they been tested as per Rule **yes**

At pipes pass through the bunkers **yes**
At pipes pass through the deep tanks **yes**
All Pipes, Cocks, Valves, and Pumps in connection with the machinery and boiler mountings accessible at all times **yes**
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 **yes** **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 **yes**

In Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**
Auxiliary Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**
Small Auxiliary Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**
Revolving Air Pumps, No. **-** Diameter **-** Stroke **-** Driven by **-**
Auxiliary Engines crank shafts, diameter as per Rule **-** as fitted **-**

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. **-** Cubic capacity of each **-** Internal diameter **-** thickness **-**
Low Pressure Air Receivers, No. **-** Material **-** Range of tensile strength **-** Working pressure **-** Actual **-**
Working Air Receivers, No. **-** Total cubic capacity **-** Internal diameter **-** thickness **-** Working pressure **-** Actual **-**
Seamless, lap welded or riveted longitudinal joint **-** Material **-** Range of tensile strength **-** Working pressure **-** Actual **-**

IF THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

RETAIN

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 Shafting Receivers 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

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.

Director, Manufacturer.

Dates of Survey while building
During progress of work in shops - (1934) March 23 29 April 21 May 10 16 21 28 June 1 4 12 18 July 6 13 14 25 26 27 28 30 31 Aug 2 3 6 10 11 16 14 20 22 23 24 31 Sept 6 7
During erection on board vessel - -
Total No. of visits 35

Dates of Examination of principal parts
Cylinders 10. 8. 34 Covers 31. 7. 34 Pistons 6. 8. 34 Rods 16. 8. 34 Connecting rods 17. 8.
Crank shaft 17. 8. 34 Flywheel shaft 17. 8. 34 Thrust shaft 6. 9. 34 Intermediate shafts 6. 9. 34 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 6. 9. 34
Crank shaft, Material S Identification Mark LR 1179 WGM Flywheel shaft, Material S Identification Mark LR 1179 WGM
Thrust shaft, Material S Identification Mark LR 4912 WGM Intermediate shafts, Material S Identification Marks LR 4912
Tube shaft, Material - Identification Mark - Screw shaft, Material - Identification Mark -

Is the flash point of the oil to be used over 150° F.
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 No 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 approved plans. The workmanship & material are of good quality. They have been tested on the Test Bed & found satisfactory. They have now been shipped to Berkenhead for fitting on board. The machinery when fitted on board & tested under working conditions will be eligible in my opinion for the notation of LMC. Notation of NE with date

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

The amount of Entry Fee £ : :
Special 4/5 = ... £ 88. 7
Donkey Boiler Fee 1/5 = ... £ 22. 0
Travelling Expenses (if any) £ : :
Committee's Minute
Assigned Deferred.

W. Gordon-Mitchell
Engineer Surveyor to Lloyd's Register of Shipping.

GLASGOW 18 SEP 1934

TUE. 28 MAY 1935 © 2020
Lloyd's Register Foundation