

Rpt. 4b.

# REPORT ON OIL ENGINE MACHINERY.

No. 19372

Received at London Office 21 AUG 1935

Date of writing Report 26<sup>th</sup> June 1935. When handed in at Local Office 2.7.35 Port of Grimby.  
No. in Survey held at Lincoln. Date, First Survey 21<sup>st</sup> March. Last Survey 24<sup>th</sup> June 1935.  
Reg. Book. Number of Visits 24

on the Single } Screw vessel Joseph medell Tons { Gross 2087  
Twin }  
Triple }  
Quadruple }  
Built at Wallsend By whom built S. Hume & Wigham Richardson Yard No. 2,150 When built 1935  
Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ Engine No. 195046 When made \_\_\_\_\_  
Aux. Engines made at Lincoln By whom made Ruston + Hornsby, Ltd. Engine No. 195046 When made 1935  
Brake Horse Power 88 each. Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Nom. Horse Power as per Rule 14 each Is Refrigerating Machinery fitted for cargo purposes  Is Electric Light fitted yes.  
Trade for which vessel is intended [ Two Engines. Type 5VQZ. ] Auxiliary.

OIL ENGINES, &c.—Type of Engines Airless Injection, Cold Starting 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 800 lb. Diameter of cylinders 5 3/8" Length of stroke 8" No. of cylinders 5 No. of cranks 5  
Mean Indicated Pressure 80 lb.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 7/16" Is there a bearing between each crank yes.  
Revolutions per minute 1000 Flywheel dia. 26" Weight 440 lbs. Means of ignition Compression Kind of fuel used Grade oil

Crank Shaft, dia. of journals as approved. Crank pin dia. 3 1/4" Crank Webs Mid. length breadth 5 3/8" Thickness parallel to axis   
as fitted 3 5/8" Mid. length thickness 1 9/16" Thickness around eye-hole

Flywheel Shaft, diameter as approved. Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule  
as fitted 3 7/8" as fitted as fitted

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner   
as fitted as fitted

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the  
as fitted as fitted propeller boss  If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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

Method of reversing Engines  Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes. Means of lubrication  
forced Thickness of cylinder liners 1/2" Are the cylinders fitted with safety valves yes. Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material water If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. one. Is the sea suction provided with an efficient strainer which can be cleared within the vessel   
Bilge Pumps worked from the Main Engines, No.  Diameter  Stroke  Can one be overhauled while the other is at work

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

Is the 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  
arrangements

Ballast Pumps, No. and size  Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one geared.  
Are two independent means arranged for circulating water through the Oil Cooler  Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
Pumps, No. and size:—In Machinery Spaces  In Pump Room

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

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes  Are the Bilge Suctions in the Machinery Spaces  
led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

Are they 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   
What pipes pass through the bunkers  How are they protected

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

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times   
Is 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  Is the Shaft Tunnel watertight  Is it fitted with a watertight door  worked from

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

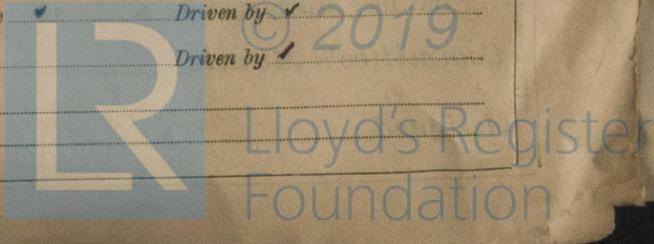
Main Air Compressors, No.  No. of stages  Diameters  Stroke  Driven by   
Auxiliary Air Compressors, No.  No. of stages  Diameters  Stroke  Driven by

Small Auxiliary Air Compressors, No.  No. of stages  Diameters  Stroke  Driven by   
Scavenging Air Pumps, No.  Diameter  Stroke  Driven by

Auxiliary Engines crank shafts, diameter as per Rule  
as fitted

RETAIN

RETAIN



W475-0017

**AIR RECEIVERS:**—Is each receiver, which can be isolated, fitted with a safety valve as per Rule ✓

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

**High Pressure 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 ✓ Actual ✓

**Starting Air Receivers, No.** ✓ 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?** *No.* 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 *7.7.32.* 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 *Yes.* ✓

State the principal additional spare gear supplied ✓

The foregoing is a correct description, **Muston & Hornsby, Limited,**

*M. R. Orions* *1/1/35* Manufacturer.

**Dates of Survey while building**  
 During progress of work in shops - *1935 Mar 21, 28 Apr 1, 4, 8, 15, 18, 25, 29 May 2, 9, 13, 16, 20, 23, 27, 30 Jun 3, 6, 13, 17, 19, 20, 24*  
 During erection on board vessel - -  
 Total No. of visits *24*

**Dates of Examination of principal parts**—Cylinders *3.6.35, 30.5.35* Covers *6.6.35* Pistons *6.6.35* Rods ✓ Connecting rods *3.6.35, 30.5.35*  
 Crank shaft *9.6.16/5/35* Flywheel shaft *9.6.16/5/35* 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 *17.6.35*

Crank shaft, Material *Sm. Steel* Identification Mark *3216A + 3217A* Flywheel shaft, Material *Sm. Steel* Identification Mark *3216A + 3217A*  
 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. ✓  
 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. *The workmanship + materials are good.*)  
*The engines have been built under Special Survey, in accordance with the Rules + Approved plans. Trials were carried out at the maker's works, driving dynamos with satisfactory results. The engines are being despatched to Wallsend-on-Tyne to be fitted on board the vessel.*

*This machinery has been installed on board, tried under working conditions and found satisfactory.*  
*A. Riddell.*

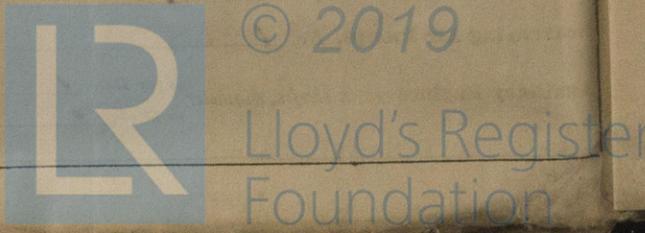
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The amount of Entry Fee .. £	When applied for,
Special ... .. £	19
Donkey Boiler Fee <i>to be charged in the 1935 fee</i> .. £	When received,
Travelling Expenses (if any) £	19

*A. L. Ridditch*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned *See NWC. 7.E. 92860*

TUE. 27 AUG 1935



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