

REPORT ON OIL ENGINE MACHINERY

No. 19915

Date of writing Report 12th Oct. 1936 When handed in at Local Office 23.10.36 Port of Grimsey Received at London Office 24 OCT 1936
 No. in Survey held at Lincoln Date, First Survey 2nd March Last Survey 8th Oct 1936
 Reg. Book. Single on the Twin Triple Quadruple } Screw Vessel Number of Visits 33

Built at _____ By whom built _____ Yard No. _____ When built _____
 Engines made at Lincoln By whom made Ruston & Hornsby, Ltd. Engine No. 178780 When made 1936
 Donkey Boilers made at By whom made Boiler No. When made
 Brake Horse Power 60 Owners Messrs Anglo-Saxon Petroleum Co. Port belonging to
 Nom. Horse Power as per Rule 18.6 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 Trade for which vessel is intended [One engine - Size 3VC RZ.]

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 700 lbs Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 3 No. of cranks 3
 Mean 81.5 lbs Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 3/8" Is there a bearing between each crank yes

Revolutions per minute 450 Flywheel dia. 3'-4" Weight 19 cwt. Means of ignition Compression Kind of fuel used Crude oil
 Crank Shaft, dia. of journals as approved Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis
as fitted 6" as fitted 4 3/4" Mid. length thickness 2 1/2" 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 6" 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 3/4" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material 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
 What special arrangements are made for dealing with cooling water if discharged into bilges

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

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

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
 d 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 No. —
as fitted Position —

IR 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 2021
 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 *11.11.32.*

(If not, state date of approval)

Receivers

Separate Tanks

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

Auston & Hornsby, Limited.

The foregoing is a correct description.

B. Lynch

Manufacturer.

Dates of Survey while building	During progress of work in shops--	1936 Mar 2, 12, 19, 23, 26, 30 Apr 6 May 4, 11, 14, 19, 21, 25 Jun 3, 11, 15, 22, 29 Jul 6, 9, 13, 16, 20 Aug 4 Sep 3, 7, 17, 24, 28 Oct	
		During erection on board vessel--	Oct 5, 7, 8.
		Total No. of visits	33.

Dates of Examination of principal parts—Cylinders *17.9.36.* Covers *17.9.36.* Pistons *15.6.36.* Rods Connecting rods *16.4.36.*

Crank shaft *15.6.36.* Flywheel shaft *15.6.36.* 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 *7.10.36.*

Crank shaft, Material *Sm. Steel* Identification Mark *3245F* Flywheel shaft, Material *Sm. Steel* Identification Mark *3245F*

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? *yes.* If so, state name of vessel *M/V "ELUSA."*

General Remarks (State quality of workmanship, opinions as to class, &c. *The workmanship + materials are good.*)

The engine has been built under Special Survey in accordance with the Rules + Approved plans. Running trials were carried out at the maker's works under brake load with satisfactory results. The engine is being forwarded to Amsterdam to be fitted on board by Messrs Werkspoor.

Certificate (if required) to be sent to the Registrar of Shipping, London, or to the Registrar of Shipping, the appropriate port of call, or to the Registrar of Shipping, the appropriate port of call, or to the Registrar of Shipping, the appropriate port of call.

Request form attached to Gen. Rpt 19812.

Rpt No. 73607/P/IV.6082-36/IV-1.

The amount of Entry Fee .. £	When applied for,
Special .. £	19
Donkey Boiler Fee .. £	When received,
Travelling Expenses (if any) .. £	19

Charged in the Annual etc.

H.L. Eilditch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI 26 FEB 1937**

Assigned *See Rot 25273*

