

Rpt. 4b.

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 Grimsby

Received at London Office

24 OCT 1936

No. in Survey held at Lincoln

Reg. Book.

Date, First Survey 2nd March

Last Survey 8th Oct. 1936.

Number of Visits 33

Single
on the Twin
Triple
QuadrupleTons } Gross
Net

Built at

By whom built

Yard No.

When built

Engines made at Lincoln

By whom made Ruston & Hornsby, Ltd.

Engine No. 78780 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.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 1/8"

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.

as fitted 6"

Crank pin dia. 4 3/4"

Crank Webs

Mid. length breadth 8"

Thickness parallel to axis ✓

Mid. length thickness 2 1/2"

Thickness around eye hole ✓

Flywheel Shaft, diameter as approved.

as fitted 6"

Intermediate Shafts, diameter as per Rule ✓

as fitted ✓

Thrust Shaft, diameter at collars as per Rule ✓

as fitted ✓

Tube 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 ✓

Bronze 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

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

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

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 bunks ✓

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 ✓

No. — ✓

Position — ✓

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 ✓

002577-002582-0168

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.

E. C. 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 5, 7, 8.*
During erection on board vessel - *33.*
Total No. of visits *33.*

Dates of Examination of principal parts—Cylinders *17.9.36.* Covers *17.9.36.* Pistons *15.6.36.* Rods *8.10.36.* 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.

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

Request form attached to Lms. Rpt 19812.

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

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

Committee's Minute

FRI 26 FEB 1937

Assigned

See Rot 25273

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



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Foundation