

Auxiliary REPORT ON OIL ENGINE MACHINERY.

No. 7981.

27 MAY 1929

pt. 4b.

Received at London Office

Port of Copenhagen

Date, First Survey 28/7 1928 Last Survey 8/5 19 27

Number of Visits 23

When handed in at Local Office 17/5 1929

in Survey held at Holeby & Copenhagen

Book. 117 on the Single Screw vessel "Laura Rita"

By whom built Büchtemann & Wain Yard No. 553 When built 1929

By whom made Holeby Dieselmaschinen Fabrik Engines No. 1613 When made 1928-29

Boiler No. _____ When made _____

Owners Great Steam Ship Co. Inc. Port belonging to New York

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

L ENGINES, &c.—Type of Engines Vertical Diesel engines, trunk type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 3 No. of cranks 3

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank yes

Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2710 kg Means of ignition compression Kind of fuel used crude oil

Crank Shaft, dia. of journals as per Rule 162 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm dia. Thickness parallel to axis Mid. length thickness 95 mm Thickness around eye-hole

Propeller Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule

Stern Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube / screw } shaft fitted with a continuous liner { } yes

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 propeller boss yes

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 _____

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 _____ Means of lubrication _____

Are the cylinders fitted with safety valves _____ 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. _____ 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 } _____

Ballast Pumps, No. and size _____ Lubricating Oil Pumps, including Spare Pump, No. and size _____

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 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 _____

Are they fitted with Valves or Cocks _____

Are all Sea Connections fitted direct on the skin of the ship _____ Are the Overboard Discharges above or below the deep water line _____

Are they 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 _____

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

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

What pipes pass through the deep tanks _____

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 _____

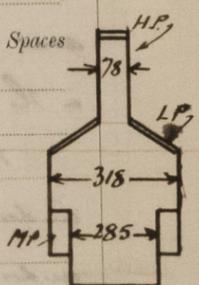
Main Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____

Auxiliary Air Compressors, No. 4 No. of stages 3 Diameters 315-285-78 mm Stroke 220 mm Driven by auxiliary engine

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 _____



AIR RECEIVERS:—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 yes What means are provided for cleaning their inner surfaces arrangement made for cleaning by steam

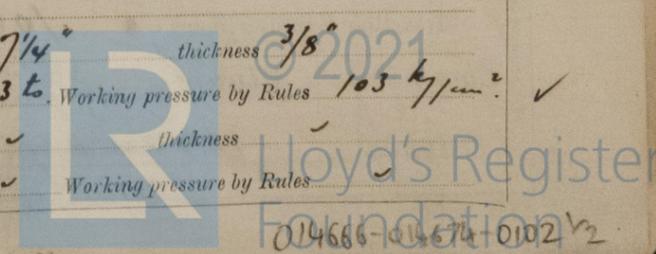
Is there a drain arrangement fitted at the lowest part of each receiver yes

High Pressure Air Receivers, No. 4 Cubic capacity of each 30 litres Internal diameter 7 1/4" thickness 3/8"

Seamless, lap welded or riveted longitudinal joint seamless Material mild steel Range of tensile strength 30.8-33 t Working pressure by Rules 10.3 kg/cm²

Starting Air Receivers, No. _____ Total cubic capacity _____ Internal diameter _____ thickness _____ Working pressure by Rules _____

Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure by Rules _____



IS A DONKEY BOILER FITTED? *Yes.*

If so, is a report now forwarded? *Yes.*

PLANS. Are approved plans forwarded herewith for Shafting *Yes.*
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers *Yes.*

General Pumping Arrangements *Yes.*

Oil Fuel Burning Arrangements

SPARE GEAR *as per separate list.*

The foregoing is a correct description,

HOLEBY DIESELMOTOR FABRIK

Manufacturer.

Dates of Survey while building	During progress of work in shops --	28/7. 4/8. 8/8. 1/9. 2/10. 29/10. 27/11. 6/12 1928; 2/1. 8/3 1927.	
		During erection on board vessel --	4/3. 6/3. 14/3. 16/3. 22/3. 2/4. 10/4. 20/4. 2/5. 7/5. 8/5 1927
		Total No. of visits	23.

Dates of Examination of principal parts—Cylinders *with* Covers *27/11. 6/12* Pistons *6/12* Rods Connecting rods *4/8. 1/9. 2/10*

Crank shaft *10/10. 27/10. 27/11* Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings *17/2. 22/2* Engines holding down bolts *14/3. 16/3. 22/3*

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions *2/1. 7/5. 8/5*

Crank shaft, Material *S.M. steel* Identification Mark *6/10-10-28 6/27-10-28* Flywheel shaft, Material Identification Mark

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. *Yes.*

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

Is this machinery duplicate of a previous case *Yes.* If so, state name of vessel *M/S "Santa Fe."*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The auxiliary engine as above described has been built under special survey and in accordance with the Society's Rules, the approved plan of crank shaft and the requirements contained in the Society's letter B dated 3-7-28.

The engine are each working a 100 kw. dynamo, they have been fitted on board the vessel under an inspection and to our satisfaction, and on completion the engines were tested under full power working conditions and found satisfactory.

The material used for the construction of the engines has been examined and tested as required by the Rules and found good, and the workmanship is of good description throughout.

The amount of Entry Fee ...	£ 40.-	When applied for, 7/2 1927
Special ...	£ 106.-	When received, 12/2 1927
Donkey Boiler Fee ...		
Travelling Expenses (if any) ...		

A.O. Jensen
Engineer-Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 31 MAY 1929**

Assigned

See report attached



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