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REPORT ON OIL ENGINE MACHINERY.

No. 118.

APR 1936

Received at London Office

Date of writing Report 23rd March 1936. When handed in at Local Office

Port of Amsterdam

Date, First Survey 21st February 36. Last Survey 18th March 1936.

Number of Visits

in Survey held at

Book.

Single
on the Twin
Triple
Quadruple

Screw vessel

ilt at

gines made at

nkey Boilers made at

ake Horse Power

m. Horse Power as per Rule

ade for which vessel is intended

By whom built Messrs. Gole Ship. Rep. Co.

By whom made Messrs. Gole Ship. Rep. Co.

By whom made

Owners

Yard No. 312 When built 1936

Engine No. 115 When made 1936

Boiler No. When made

Port belonging to

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c. Type of Engines Heavy Oil Engine 2 & 4 stroke cycle four Single or double acting single

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders Seven No. of cranks Seven

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 307.5 mm Is there a bearing between each crank Yes

Revolutions per minute 350 Flywheel dia. 1250 mm Weight 2600 kg Means of ignition Solid injection Kind of fuel used

Crank Shaft, dia. of journals as per Rule 190 mm as fitted 190 mm Crank pin dia. 140 mm Crank Webs Mid. length breadth 339 mm Thickness parallel to axis 40 mm Mid. length thickness 40 mm Thickness around eye hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars 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 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

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 direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Pressure Thickness of cylinder liners 2.5 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

Non-conducting material water cooled 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. one Diameter 100 mm Stroke 85 mm Can one be overhauled while the other is at work Yes

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 Tooth wheel pumps 1 spare

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces In Pump Room

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 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. one No. of stages Two Diameters 145 x 60 mm Stroke 85 mm Driven by Main engines

Auxiliary Air Compressors, No. one 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

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 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 Actual

Starting Air Receivers, No. Two Total cubic capacity 1000 litres Internal diameter 450 mm thickness 12 mm Working pressure Actual

Seamless, lap welded or riveted longitudinal joint Lap welded Material S.M.S.A. Range of tensile strength Working pressure Actual

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OILS

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 13.2.1935
(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 1 complete fuel valve, 2 sets of suction and delivery valves of the fuel pump, 2 kinds of cams for fuel pumps, 2 cams for fuel pumps and an assortment of springs, fuel needles etc. ordered by the owners.

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.

Dates of Survey while building { During progress of work in shops - 21.2.36 - 4.3.36 - 12.3.36 - 16.3.36 - 18.3.36
During erection on board vessel -
Total No. of visits

Dates of Examination of principal parts - Cylinders 21.2.36 Covers 21.2.36 Pistons 21.2.36 Rods 21.2.36
Crank shaft 4.3.36 Flywheel shaft Thrust shaft Intermediate shafts 4.3.36 Tube shaft 21.2.36
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

Crank shaft, Material S. M. 44

Identification Mark 10411 V. 28/130

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material S. M. 44

Identification Marks 29331, F. 9. 10/3

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 P. A. Hawthorn Leslie & Co. Ltd. Yard 608. 21st

General Remarks

(State quality of workmanship, opinions as to class, &c.) The engines are built in accordance with the approved plans and the requirements embodied in the Secretary's letter of the 13th February 1935 and otherwise in accordance with the requirements of the Rules. Materials and workmanship are of best quality the outfit is ample. The engines have been tested under full working and manoeuvring conditions for about six hours on the trial stage in machine shop and have given full satisfaction. After trial all working parts have been opened up and were found on examination in good condition. This machinery has been built under special survey and will be fitted on board the vessel No. 312 in construction at Messrs. Goolle Shipbuilding & Rep. Co. of Goolle. In my opinion this machinery is eligible for notation: 21.2.36

The amount of Entry Fee 40.00 :
Special 408.00 :
Donkey Boiler Fee £ :
Travelling Expenses (if any) 60.00 :
When applied for, 24.3.1936
When received, 20.5.36
Account No. 8884
H. Hull & Co.

Committee's Minute

TUE. 30 JUN 1936

FRI. 14 AUG 1936

FRI. 16 OCT 1936

Assigned

See Hul 26 46845

Engineer Surveyor to Lloyd's Register of Shipping.

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