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REPORT ON OIL ENGINE MACHINERY.

No. 46.

Received at London Office 14 AUG 1930

Writing Report 16th July 1930 When handed in at Local Office

Port of DUSSELDORF

Survey held at

Cologne - Germany

Date, First Survey 22. IV. 1930.

Last Survey 30. IV. 1930

19 30

Number of Visits five

on the Single
Twin
Triple
Quadruple
Screw vessel

Tons
Gross
Net

at Harlow Hong Kong

By whom built Hongkong & Shanghai Dock Co. Ltd. Yard No. 681 When built

made at Cologne - Germany

By whom made Motorenfabrik Pilsch & Co. Engine No. 190 When made 1930

Boilers made at

By whom made Boiler No. When made

Horse Power 330

Owners

Port belonging to

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

for which vessel is intended

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

mean pressure in cylinders 40 kg p. sq. cm. Diameter of cylinders 280 mm Length of stroke 500 mm No. of cylinders six No. of cranks six

of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm Is there a bearing between each crank Yes

utions per minute 304 Flywheel dia. 1220 mm Weight 2200 kg Means of ignition Fuel spray Kind of fuel used

k Shaft, dia. of journals as per Rule as fitted 120 mm Crank pin dia. 120 mm Crank Webs Mid. length breadth 260 mm Thickness parallel to axis

heel 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 165 mm

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

ize 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

er boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

o 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

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

od of reversing Engines by cam shafts Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

pressure Thickness of cylinder liners 23 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

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

ing Water Pumps, No. One Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. One Diameter 130 mm Stroke 68 mm Can one be overhauled while the other is at work Yes

s connected to the Main Bilge Line No. and Size How driven One both wheel pump and one spare

st Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

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

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

ds, &c.

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

l the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

m easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

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

ey 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

ey 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

pipes pass through the bunkers How are they protected

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

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

tment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Air Compressors, No. One No. of stages Two Diameters 130 x 150 mm Stroke 100 mm Driven by Main Engine

ary Air Compressors, No. No. of stages Diameters Stroke Driven by

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

nging Air Pumps, No. Diameter Stroke Driven by

ary Engines crank shafts, diameter as per Rule as fitted

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

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

Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

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

ting Air Receivers, No. Three Total cubic capacity 500 litres each Internal diameter 450 mm thickness 12 mm

less, lap welded or riveted longitudinal joint lap welded Material Mild Steel Range of tensile strength 40,2 kg p. sq. cm. Working pressure by Rules Actual

Working pressure Actual 25 kg p. sq. cm.

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 18. IV. 22. 1896 to 1897 Receivers 13. IV. 22. 1896 to 4. 4496 Separate Tanks 5. IV. 22.

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 as ordered by the owner.

The foregoing is a correct description,

Motorenfabrik Deutz

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 22. IV. 30, 12. 30, 4. V. 30, 25. V. 30 and 30. VI. 30. During erection on board vessel - - 1. VII. 30. Total No. of visits 1.

Dates of Examination of principal parts—Cylinders 22. IV. 30. Covers 4. V. 30. Pistons 4. V. 30. Rods Connecting rods 1. V. 30. Crank shaft 4. V. 30. Flywheel shaft Thrust shaft 26. V. 30. 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 Crank shaft, Material 1 lb Steel Identification Mark 8933 lb 3 4 5 30 Flywheel shaft, Material Identification Mark Thrust shaft, Material 1 lb Steel Identification Mark 3456 lb 4 5 26 5 30 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 as 1st Report 4 to 37 of 12. I. 30.

General Remarks (State quality of workmanship, opinions as to class, &c. The engines after completion has been tested under full working condition for five hours on the trial bench in the makers shop in satisfactory results. All working parts have been examined throughout after opening up and were found in safe working condition. This machinery has been built under special survey, and is eligible in my opinion for notation of NE 7.3

The amount of Entry Fee .. £ 2 : 0 : When applied for, 18. IV. 19. 30. 5319 Special ... £ 23 : 15 : When received, 18. IV. 30. 18/4.30 Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ 5 : 18 : 10 Aug 1930.

Committee's Minute FRI. 19 DEC 1930

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.

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