

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 19484
18 AUG 1930

Received at London Office

Date of writing Report 16th Aug 1930 When handed in at Local Office

Port of HAMBURG

No. in Survey held at
Reg. Book.

KIEL

Date, First Survey 20th Jan. 30 Last Survey 5th AUGUST 1930

Number of Visits 36

Single
on the Twin
Triple
Quadruple

Screw vessel

PETER HURLL

Tons { Gross 12043
Net 6857

Built at HEBBURN-ON-TYNE

By whom built PALMERS SHIPBUILDING CO. Yard No. 1000 When built 1930

Engines made at KIEL

By whom made FRIEDR. KRUPP GERMANIA WERFT A.G. Engine No. 3874 When made 1930

Donkey Boilers made at ✓

By whom made ✓

Boiler No. — When made —

Brake Horse Power 2 x 2500

Owners STANDARD SHIPPING CO.

Port belonging to

Nom. Horse Power as per Rule 1496

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended

OIL ENGINES, &c. Type of Engines KRUPP DIESEL ENGINES 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 680 mm Length of stroke 1300 mm No. of cylinders 6 No. of cranks 6

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 1010 mm Is there a bearing between each crank yes

Revolutions per minute 90 Flywheel dia. 2300 mm Weight 9000 kg Means of ignition Direct minimum Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 450 mm Crank pin dia. 450 mm Crank Webs Mid. length breadth 275 mm R 425 Thickness parallel to axis 280 mm

Flywheel Shaft, diameter as per Rule as fitted 450 mm Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted 440 mm

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

Thickness of cylinder liners 50 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

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 One of 22 m³/hour, rotary type attached to each main Eng.

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Are two independent means arranged for circulating water through the Oil Cooler

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

led 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 fixed sufficiently high on the ship's side to be seen without lifting the platform plates

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

What pipes pass through the bunkers

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. 2 on each main Eng. No. of stages 3 Diameters 800/700/175 mm Stroke 900 mm Driven by Main Eng.

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 220/280/80 mm Stroke 300 mm Driven by Aux. Eng.

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

Scavenging Air Pumps, No. 3 on each main Eng. Diameter 800 mm Stroke 1300 mm Double acting Driven by Main Eng.

Auxiliary Engines crank shafts, diameter as per Rule 167 mm as fitted 175 mm crank pin 170 mm

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 doors & covers

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

High Pressure Air Receivers, No. 2 Cubic capacity of each 300 litres Internal diameter 400 mm thickness 18 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 46-52 kg Working pressure by Rules 93 kg/cm²

Starting Air Receivers, No. 5 Total cubic capacity 5 x 2700 litres Internal diameter 1120 mm thickness 36 mm

Seamless, lap welded or riveted longitudinal joint seamless Material S.M. Steel Range of tensile strength 46-52 kg Working pressure by Rules 74 kg/cm²Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 6. 12. 29
(If not, state date of approval)

Receivers 4. 1. 30

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR All Articles as required by Section 6, page 117 of the Rules for construction & Survey of Diesel Engines and their Auxiliaries (1929-30) have been supplied with.

The foregoing is a correct description,

FRIED. KRUPP
GERMANIA WERKE
Aktiengesellschaft

Manufacturer.

Dates of Survey while building { During progress of work in shops -- Jan. 20. 29. Feb. 3. 5. 21. 28. March 12. 16. April 7. 9. 11. 16. 23. May 9. 14. 19. 22. 28. June 2. 4. 18. 25. 27.
During erection on board vessel -- July 5. 7. 9. 11. 14. 18. 21. 23. 28. 30. August 1. 5. 19 30
Total No. of visits 36

Dates of Examination of principal parts—Cylinders 3/6. 18/6. 7/7. Covers 7/7. 14/7. 30 Pistons 21/5. 28/5. 30 Rods 7/7. 30 Connecting rods 7. 7. 30

Crank shaft 19. 5. 30 Flywheel shaft 19. 5. 30 Thrust shaft 19. 5. 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 S.M. Steel Identification Mark H.K. 4000. 25. 4. 30 in one with Thrust shaft Lloyd's H.K. 4000. 25. 4. 30

Crank shaft spare Material S.M. Steel Identification Mark Lloyd's J.S.H. 2680 Flywheel shaft, Material S.M. Steel Identification Mark H.K. 4031 30. 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. 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 Cargarette & Furness Yacht No. 176

General Remarks (State quality of workmanship, opinions as to class, &c. The parts surveyed here are:

Port & Starb. Main Engines, without line shafting. 2 Aux. Diesel Engine sets with Generators and Air Compressors, 2 Hot air receivers, 5 Harting air receivers and all the spare parts.

The Machinery has been built under Special Survey in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules. The Materials are made at works recognised by the Committee and tested by the Loc. Surveyors.

The Machinery is eligible in my opinion for notation of * LME Oil Engine with date subject to satisfactory installation on board and examination under working and manoeuvring conditions.

The Engines have been shipped to Hibernia-on-Tyne

The amount of Entry Fee ... £ :
Special ... £ 114 : 14 :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 18 : - :
When applied for, 15. 8. 1930
When received, as per letter from Mr. [unclear] 19. 9. 1930

A. Carstensen
Engineer Surveyor to Lloyd's Register of Shipping.



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

Committee's Minute
Assigned

See NWC 76. 86440

TUE. 25 NOV 1930