

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 288

Comm. 684739.

Received at London Office SEP 16 1938

Date of writing Report 2.9. 1938 When handed in at Local Office 9.9. 1938 Port of Düsseldorf
No. in Survey held at Cologne Date, First Survey 20.1.38. Last Survey 2.9. 1938
Reg. Book. Number of Visits 12
Single on the Twin Triple Quadruple Screw vessel *M. Fairingorn* Tons Gross Net
Built at Capelle By whom built Vuyk & Zoon Yard No. 646 When built 1938
Engines made at Cologne By whom made Humboldt-Deutzmotoren A.G. Engine No. 486587/94 When made 1938
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 400 Owners Port belonging to
Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c. Type of Engines Heavy oil engine RV8M 345 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280mm Length of stroke 450mm No. of cylinders 8 No. of cranks 8
Mean Indicated Pressure 6.6 kg/cm² Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 307,5mm Is there a bearing between each crank yes
Revolutions per minute 300 Flywheel dia. 1250mm Weight 2600 kg Means of ignition sol. inject Kind of fuel used on test bed gas oil
Crank Shaft, { Solid forged as per Rule dia. of journals as fitted 190mm Crank pin dia. 170mm Crank Webs Mid. length breadth 340mm Thickness parallel to axis 70mm shrunk Thickness around eye hole
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 190mm 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 directly No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication
forced Thickness of cylinder liners 25mm Are the cylinders fitted with safety valves yes Are the exhaust pipes ~~water~~ water cooled or lagged with
non-conducting material 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 100mm Stroke 100mm Can be overhauled while the other is at work yes
Pumps connected to the Main Bilge Line { No. and Size How driven
Is the cooling water led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements capacity 80 ltrs/min at 1400 r.p.m.
Ballast Pumps, No. and size Main engine Driven Lubricating Oil Pumps, ~~water~~ No. and size 1 tooth wheel pump
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
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 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 145/60mm Stroke 100mm Driven by main engine
Auxiliary Air Compressors, No. one No. of stages two Diameters 145/60mm Stroke 100mm Driven by
Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
What provision is made for first Charging the Air Receivers
Scavenging Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule as fitted Position
Have the Auxiliary Engines been constructed under special survey Is a report sent herewith

01002-010023-0304

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AIR RECEIVERS:—Have they been made to survey ☒ yes Are reports certificates now forwarded attached to the this report sent to Rot Off
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 ☒ yes Is a drain fitted at the lowest part of each receiver ☒ yes
Injection 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. two Total cubic capacity 2x500 lts. Internal diameter 450mm thickness 12mm
lapwelded Material S.M.Steel Range of tensile strength 38-44 kg/mm² Working pressure by Rules Actual 30 kg/cm²
Seamless, lap welded or riveted longitudinal joint Material S.M.Steel Range of tensile strength 38-44 kg/mm² Working pressure by Rules Actual 30 kg/cm²

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting 212480 1.9.36. Receivers G.O. 244 21.7.32 Separate Fuel Tanks
(If not, state date of approval)

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space
Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied ☒ yes

State the principal additional spare gear supplied

Identification marks for air receivers:

No.2303 2299

LLOYD'S TEST

60 Atm.

W.P.30 Atm.

L.S. 7.6.38.

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.

Dates of Survey while building
During progress of work in shops-- 20.1.-7.6.-14.6.-1.7.-13.7.-19.7.-20.7.-22.7.-19.8.-30.8.-31.8.-2
During erection on board vessel--
Total No. of visits

Liners: 20.7.-22.7.-2.9.

Dates of Examination of principal parts—Cylinders 20.7. Covers 1.7. Pistons 31.8. Rods Connecting rods 14.6. 19
Crank shaft 25.4.-22.7. Flywheel shaft Thrust shaft 2.9. Intermediate shafts 20.1. 2.9. Tube shaft 2.9.

Screw shaft 31.8. Propeller Stern tube Engine seatings Engines holding down bolts
Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions 30.8. on test

Crank shaft, Material S.M.Steel Identification Mark LLOYD'S 13782 M.B. Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark 25.4.38 Intermediate shafts, Material S.M.Steel Identification Marks LLOYD'S 3498 H.B.2.9

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 Messrs. My.De Noord. Yard No.559
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General Remarks (State quality of workmanship, opinions as to class, &c.)

This heavy oil engine has been constructed under special survey in accordance with the Society's Rules and Regulations as well as in accordance with the approved plan/instructions thereto.

The material used in the construction is good and the workmanship is satisfactory. The engine has been tested on the Maker's test bed in the presence of the undersigned during 10 hours consecutive running under full load and 10% overload and was found to be in safe working condition during the trials. After the trials all working parts of the engine have been opened out for inspection and were found in good condition, In my opinion the vessel for which this engine is intended will be eligible for the notation + L.M.C.(with date) when the whole machinery has been fitted satisfactorily on board and tried under full working condition.

A copy of this report has been sent to the Rotterdam Office.

The amount of Entry Fee .. £ 40.-

Special ... £ 470.-

Donkey Boiler Fee ... £

Travelling Expenses (if any) £ 60.-

When applied for,

Sept. 13. 1938

When received,

12.10.1938

Dr. Account

11746.

1/3 of fees credited

to Rotterdam account

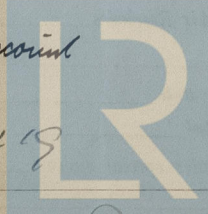
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 25 OCT 1938

Assigned

See F/E machy n. 1. 1. 274 18



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