

REPORT ON OIL ENGINE MACHINERY.

No. 3931

Date of writing Report 26 April 1930. When handed in at Local Office

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No. in Survey held at Sickla Sm. Lst.

Port of Stockholm. Date, First Survey 11 March 1929 Last Survey 5 April 1930

Number of Visits 22

on the Single Twin Triple Quadruple Screw vessel Janwood

Tons Gross Net

Built at Fredrikstad By whom built Fredrikstad Mek. Værst. Yard No. When built 1930.
Engines made at Stockholm By whom made P. H. H. Diesel Engine No. 50123 When made 1930.
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 1170 Owners N/S Janwood Port belonging to Oslo
Nom. Horse Power as per Rule 382 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

OIL ENGINES, &c. Type of Engines Polar Diesel Oil Engine (Type MP 285) 2 or 4 stroke cycle Single or double acting
Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 490 mm Length of stroke 720 mm No. of cylinders 8 No. of cranks 8
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 568 mm Is there a bearing between each crank yes
Revolutions per minute 155 Flywheel dia. 1500 mm Weight 2100 kg Means of ignition Diesel Kind of fuel used crude oil
Crank Shaft, dia. of journals as per Rule 279 mm Crank pin dia. 285 mm Crank Webs Mid. length breadth 380 mm Thickness parallel to axis
Flywheel Shaft, diameter as fitted 285 mm Intermediate Shafts, diameter as fitted 221 mm Thrust Shaft, diameter at collars as per Rule 226 mm
Tube Shaft, diameter as fitted Screw Shaft, diameter as fitted Is the tube screw shaft fitted with a continuous liner
Bronze Liners, thickness in way of bushes as per Rule 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 shaft. 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 manoeuvring cylinder is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

pumps Thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes 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 130 mm Stroke 221 mm double acting 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 none ordered Lubricating Oil Pumps, including Spare Pump, No. and size (of gearwheel type) one, size 550 litres/min.

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

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. / No. of stages 3 Diameters 465/350-130/30 Stroke 230 mm for LP and 500 mm for HP Driven by Main engine

Auxiliary Air Compressors, No. / No. of stages 3 Diameters 340-75/340-300/75 Stroke 200 mm Driven by Electric motor

Small Auxiliary Air Compressors, No. / No. of stages 2 Diameters 85-30/30 Stroke 125 mm Driven by Atlas engine

Scavenging Air Pumps, No. / Diameter 780 mm Stroke 500 mm Driven by Main engine

Auxiliary Engines crank shafts, diameter as per Rule

IR 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 mudholes 120 and 200 mm

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

High Pressure Air Receivers, No. 2 Cubic capacity of each 150 and 350 litres Internal diameter 300 and 460 mm thickness 17.5 and 25 mm

Seamless, lap welded or riveted longitudinal joint lap welded Material S. M. Steel Range of tensile strength 38 kg/cm² as a min. Working pressure by Rules 70.6 and 70.5 kg/cm² resp.Starting Air Receivers, No. ordered as Fredrikstad Total cubic capacity 2 x 9.5 m³ Internal diameter 1700 mm thickness 77 mmSeamless, lap welded or riveted longitudinal joint Riveted Material Range of tensile strength Working pressure by Rules 15.5 kg/cm²

W194-0064

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *See Secretary's letters* E 22/11/28 - 28 Receivers 26/5/28 - 5/6/28 Separate Tanks

Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR as per list, approved on the 14 Dec. 1929, will be inspected when machinery is being fitted in ship.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 11/2/3 - 13/2/6 - 5/11/9 - 1/10 1929. 23/2/28 - 15/18/20/21/25/26/2 - 19/20/27/3 - 5/4 1930
During erection on board vessel - -
Total No. of visits in shop 20.

Dates of Examination of principal parts—Cylinders 17/15/20/30 Covers 17/15/20/30 Pistons 15/19/30 Rods 15/29-20/30 Connecting rods 12/19/10/29/30

Crank shaft 13/10/29/20/30 Flywheel shaft 5/1/10/29/20/30 Thrust shaft 11/17/16/29/20/30 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 in shop 15/2/30

Crank shaft, Material S. M. Steel Identification Mark LLOYD'S No 1043 I.R.M. 13.6.29 Flywheel shaft, Material S. M. Steel Identification Mark LLOYD'S No 1042 I.R.M. 13.6.29

Thrust shaft, Material S. M. Steel Identification Mark LLOYD'S No 5721 I.R.M. 5.7.29 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.

Is this machinery duplicate of a previous case No If so, state name of vessel

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

I am of opinion that this engine is of superior material and workmanship, and as it has been designed and constructed under Special Survey, I have respectfully to submit, that it will be eligible to be classed *LMC as soon as it has been fitted in a ship to the satisfaction of the Society's Engineer Surveyors.

The amount of Entry Fee ... £ : When applied for,
Special in shop ... £ 149/86 : 26/4 1930
Donkey Boiler Fee ... £ : When received,
Travelling Expenses (if any) £ 95/00 : 30/6 1930
Total £ 1592/86

Committee's Minute FRI. 26 SEP 1930

Assigned

See F.E. Rpt

TUE. 12 MAY 1931

C. J. Sakson
Engineer Surveyor to Lloyd's Register of Shipping.
Assisted by Mr. K. J. Andersson

Lloyd's Register Foundation