

forwarded Rpt. 4b

REPORT ON OIL ENGINE MACHINERY

No. 1341 C.

Received at London Office 23 MAR 1931

Date of writing Report 25th March 31 When handed in at Local Office

Port of Pirum

No. in Survey held at 1067 on the Reg. Book.

Date, First Survey 5 Nov. 1930 Last Survey 20th March 1931

Number of Visits 15

Single
Twin
Triple
Quadruple

Screw vessel

"J.H. SENIOR"

Tons Gross 11900
Net

Built at 1067

By whom built Verin Lash Nordrup

Yard No. 173

When built 1930/31

Engines made at Kiel

By whom made Fried. Schupp-Germania

Engine No. 3886

When made 1930

Donkey Boilers made at Kiel

By whom made Fried. Schupp-Germania

Boiler No. 3798

When made 1930

Indicated Horse Power 2 x 2500

Owners Kallin. Am. Petroleum

Port belonging to

Danzig

Norm. Horse Power as per Rule 1496

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended Ocean going carrying Petroleum in bulk.

L ENGINES, &c. Type of Engines Direct engine, 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 2 x 6 No. of cranks 2 x 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 principle Kind of fuel used Diesel Oil

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

Flywheel Shaft, diameter as per Rule as fitted 440 mm Intermediate Shafts, diameter as per Rule as fitted 345 mm Thrust Shaft, diameter at collar as per Rule as fitted 440 mm

Tube Shaft, diameter as per Rule as fitted 380 mm Is the tube shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 19 mm as fitted 20/22 mm Thickness between bushes as per rule 14 mm as fitted 20 mm Is the after end of the liner made watertight in the

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

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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after

end of the tube shaft No Length of Bearing in Stern Bush next to and supporting propeller 1520 mm

Propeller, dia. 4876 mm Pitch 5025 mm No. of blades 3 Material bronze whether Moveable Yes Total Developed Surface 7 sq. m

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 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes

Cooling Water Pumps, No. 2 fly wheel each 220 m³/hour Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line No. and Size 2 - 100 m³/hour, 1 - 100 m³/hour How driven electrically by steam

Ballast Pumps, No. and size 2 - 100 m³/hour each Lubricating Oil Pumps, including Spare Pump, No. and size 1 - 40 m³/hour

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 1 - 150 mm, 2 - 180 mm, 7 - 90 mm dia. 1 in after plate 150 mm, 1 in fore plate 140 mm dia.

In Holds, &c. in each hold 1 - 260 mm, 1 - 150 mm, in each stummen 1 - 150 mm, fore plate tank 1 - 100 mm, chain locker 2 - 100 mm

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 260 mm, 1 - 150 mm boiler shell 2 - 60 mm dia.

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

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

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes

What pipes pass through the bunkers none How are they protected Yes

What pipes pass through the deep tanks none Have they been tested as per Rule Yes

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

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 Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

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 on each engine No. of stages 3 Diameters 800/700/176 mm Stroke 900 mm Driven by Main engine

Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 320/280/80 mm Stroke 300 mm Driven by Aux. engine

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 180/60 mm Stroke 160 mm Driven by steam engine

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

Auxiliary Engines crank shafts, diameter as per Rule 167 mm as fitted 175 mm. crank pins 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 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/cm² 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/cm² Working pressure by Rules 74 kg/cm²

1 seamless for whistle riveted S.M. Steel cubic capacity 2500 litres Range of tensile strength 41-47 kg/cm² Working pressure by Rules 12 kg/cm²

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers 16/7/30, 4/1/30, 24/12/29 Separate Tanks

Donkey Boilers 14/5/30

General Pumping Arrangements 27/9/30

Oil Fuel Burning Arrangements 10/12/30

SPARE GEAR All articles as required by Section 6 page 117 of the Rules for Construction and Survey of Steam Engines and their Auxiliaries (1929-1930) have been supplied.

The foregoing is a correct description,

(Please see Hamburg Surveyor Report No. 19576).

Manufacturer.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits 15

1930: Nov. 5, 1931: Jan 15, 29, February 2, 6, 12, 13, 26, 27, March 5, 6, 11, 12, 19, 20.

Dates of Examination of principal parts—Cylinders 15/1/31 Covers 15/1/31 Pistons 15/1/31 Rods 15/1/31 Connecting rods 15/1/31
 Crank shaft 6/13/2/31 Flywheel shaft 6/13/2/31 Thrust shaft 6/13/2/31 Intermediate shafts 6/13/2/31 Tube shaft ✓

Screw shaft 5/11/31 Propeller 5/11/31 Stern tube 5/11/31 Engine seatings 5/11/31, 29/1/31 Engines holding down bolts 6/13/2/31

Completion of fitting sea connections 15/1/31 Completion of pumping arrangements 20/2/31 Engines tried under working conditions 20/3/31

Crank shaft, Material J. M. Steel Identification Mark Lloyd's Port M.B. 9080/11.11.630 in one with Thrust shaft Identification Mark Lloyd's Port M.B. 9082/11.6.30

Thrust shaft, Material in one with Flywheel shaft Identification Mark ✓ Intermediate shafts, Material J. M. Steel Identification Mark Lloyd's Port M.B. 9250/4.1.1931

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material J. M. Steel Identification Mark Lloyd's Port M.B. 9254/29.1.1931

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 Yes

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 "Lagaron", "Rear Hurni", Eumen Gas No. 1/

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

These Diesel engine and their accessories have been constructed under Special Survey in accordance with the approved plans, the Secretariat's letter and otherwise in conformity with the requirements of the Rules. The materials are made at works recognized by the Committee and tested by the Society's Surveyors. The materials and workmanship are of good quality. (Please see Hamburg Surveyor Report No. 19576.)

They have been satisfactorily installed on board and examined under full working and manoeuvring conditions and were found to work satisfactorily.

The machinery is in my opinion eligible to be classed in the Society's Register Book with the notation of + L.M.C. 3, 31. Oil engine, C.L., 2 water Tube D.B. 200 lb.

(3 Test certificates attached.)

The amount of Entry Fee 1/5... £ 1 : 4 : When applied for, 26. 3. 1931
 Special ... 1/5... £ 27 : 10 :
 Donkey Boiler Fee 1/5... £ 5 : 7 : When received, 8. 11. 1931
 Travelling Expenses (if any) £ 15 : 0 :
 TUE, 5 MAY 1931

Committee's Minute

Assigned

+ L.M.C. 3, 31 C.L.

Oil Eng. 200 H.P. 200 lb.
 200. 100 lb.

G. H. C. Kamm

Engineer Surveyor to Lloyd's Register of Shipping.



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