

Rpt. 4b.

538

REPORT ON OIL ENGINE MACHINERY.

No. 13640

Received at London Office

29 FEB 1936

Date of writing Report 22 February 1936 When handed in at Local Office

Port of Amsterdam

No. in Survey held at Reg. Book.

Amsterdam

Date, First Survey 16 Sept

Last Survey 10 February 1936

Number of Visits 23

Single
Twin
Triple
Quadruple

Screw vessel M.V. "Pentecola"

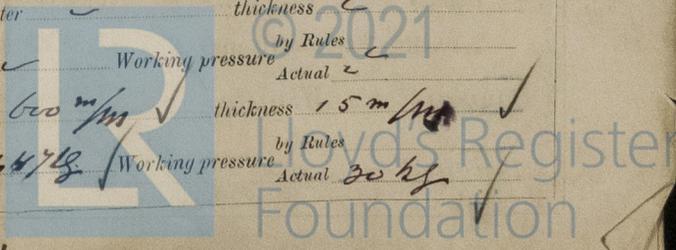
Tons
Gross
Net

Built at *Rampen 2/2 yard* By whom built *C. v. d. Gussen* Yard No. *629* When built *1936*
 Engines made at *Amsterdam* By whom made *N. V. Werkspoor* Engine No. *666/667* When made *1936*
 Donkey Boilers made at *Amsterdam* By whom made *N. V. Werkspoor* Boiler No. *2729* When made *1936*
 Brake Horse Power *2 x 300* Owners _____ Port belonging to _____
 Nom. Horse Power as per Rule *162* Is Refrigerating Machinery fitted for cargo purposes *1* Is Electric Light fitted _____
 Trade for which vessel is intended _____

OIL ENGINES, &c.—Type of Engines *Diesel Solid injection* 2 or 4 stroke cycle *4* Single or double acting *single*
 Maximum pressure in cylinders *45 kg* Diameter of cylinders *300 mm* Length of stroke *400 mm* No. of cylinders *2 x 6* No. of cranks *6*
 Span of bearings, adjacent to the Crank measured from inner edge to inner edge *370 mm* Is there a bearing between each crank *yes*
 Revolutions per minute *200* Flywheel dia. *1100 mm* Weight *1250 kg* Means of ignition *solid injection* Kind of fuel used *crude oil*
 Crank Shaft, dia. of journals as per Rule *100 mm* as fitted *220 mm* Crank pin dia. *100 mm* Crank Webs Mid. length breadth *300 mm* Thickness parallel to axis *✓*
 Flywheel Shaft, diameter as per Rule *✓* as fitted *✓* Intermediate Shafts, diameter as per Rule *✓* as fitted *170 mm* Thrust Shaft, diameter at collars as per Rule *on crankshaft* as fitted *220 mm*
 Tube Shaft, diameter as per Rule *✓* as fitted *✓* Screw Shaft, diameter as per Rule *✓* as fitted *175 mm* Is the *tube* *screw* shaft fitted with a continuous liner *yes*
 Bronze Liners, thickness in way of bushes as per Rule *✓* as fitted *15 mm* Thickness between bushes as per rule *✓* as fitted *13 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 *✓*
 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 *no* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *716 mm*
 Propeller, dia. *1790 mm* Pitch *1295 mm* No. of blades *3* Material *Brass* whether Moveable *no* Total Developed Surface *4055*
 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 *24 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. *2* Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____
 What special arrangements are made for dealing with cooling water if discharged into bilges _____
 Bilge Pumps worked from the Main Engines, No. *2* Diameter *130 mm* Stroke *90 mm* Can one be overhauled while the other is at work *yes*
 Pumps connected to the Main Bilge Line No. and Size *1 General service pump 7 1/2" x 6" x 10"* How driven *Steam driven*
 Ballast Pumps, No. and size *general service 7 1/2" x 6" x 10"* Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *1 Spare 4 1/2" x 3" x 4"*
 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 _____ 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. *none* No. of stages *✓* Diameters _____ Stroke _____ Driven by *✓*
 Auxiliary Air Compressors, No. *One* No. of stages *2* Diameters *5 1/2 - 127 mm* Stroke *90 mm* Driven by *Steam engine*
 Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Scavenging Air Pumps, No. *✓* Diameter _____ Stroke _____ Driven by _____
 Auxiliary Engines crank shafts, diameter as per Rule _____ as fitted _____ Position _____

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 and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*
 High Pressure Air Receivers, No. *none* Cubic capacity of each _____ Internal diameter _____ thickness _____
 Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____
 Starting Air Receivers, No. *2* Total cubic capacity *3 M³* Internal diameter *600 mm* thickness *15 mm*
 Seamless, lap welded or riveted longitudinal joint *Seamless* Material *SM 8* Range of tensile strength *46.4/18* Working pressure _____



IS A DONKEY BOILER FITTED? *yes* ✓

If so, is a report now forwarded? *yes* ✓

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

PLANS. Are approved plans forwarded herewith for Shafting *E 4-9-25 & 30-9-25* Receivers *E 22-10-25* Separate Tanks *E 30-12-25*
(If not, state date of approval)

Donkey Boilers *E 13-9-25* General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description,

WERKSPOR N.V.

[Signature]

Manufacturer.

Dates of Survey while building: During progress of work in shops - *Sept 16-20 Oct 9-16 Nov 13-25 Dec 6-17-19-30 Jan 6-10-13-14-16-21-23-29 Feb 5-10*
During erection on board vessel -
Total No. of visits

Dates of Examination of principal parts—Cylinders *25 Nov 6 Dec* Covers *25 Nov 1925* Pistons *25 Nov 1925* Rods *25 Nov 1925* Connecting rods *19-20-10-25*

Crank shaft *23 Sept 2 Oct 10 Jan* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *8-1-36 7-1-36* Tube shaft *✓*

Screw shaft *7-12-36 6-1-36* Propeller *13-1-36* Stern tube *8 January* Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material *SMS* Identification Mark *1766-1767 440403 HRB 17-12-25* Flywheel shaft, Material Identification Mark *1835-1836 440403 HRB 17-1-36*
Thrust shaft, Material Identification Mark Intermediate shafts, Material *SMS* Identification Marks *1800-1801 440403 HRB 6-1-36*
Tube shaft, Material Identification Mark Screw shaft, Material *SMS* 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

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 If so, state name of vessel

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

*The engines have been made under special survey in accordance with the rules, approved plans & Secretary's letters
Workmanship throughout good*

The engines have been forwarded to Krumpen & Juel and will be placed aboard of Messrs. A. Gutter's, 200m Jard No. 639

A copy of this report have been forwarded to the Rotterdam surveyors.

The amount of Entry Fee .. *£ 30* : When applied for, .. 19
Special .. *45/9 389* :
Donkey Boiler Fee .. : When received, ..
Travelling Expenses (if any) .. *£ 3.50* : *13-3 19 36 13/3*
Committee's Minute *FRI. 8 APR 1936*

Assigned *+ L.M.C. 3.36*
oil Eng. DB. 180 lb. CL.

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.
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(The Surveyors are requested not to write on or below the space for Committee's Minute.)