

REPORT ON OIL ENGINE MACHINERY.

No. 24398.

28 MAR '36

Date of writing Report 24-3-1936 When handed in at Local Office

19

Port of

Received at London Office

Rotterdam

No. in Survey held at *Krimpen 21 Yssel*
Reg. Book.

Date, First Survey

29-1-36

Last Survey

4-3-1936

Number of Visits 11.

Single
on the Twin
Triple
Quadruple

MOTOR

Screw vessel

PENTEOLA

Tons
Gross
NetBuilt at *Krimpen 21 Yssel*By whom built *W. & A. G. van der Grinten Scheepswerf*

Yard No. 639 When built 1936

Engines made at *Amsterdam*By whom made *N.V. Werkspoor*

Engines No. 666 When made 1936

Donkey Boilers made at *do*By whom made *do*

Boiler No. 2429 When made 1936

Brake Horse Power *2 x 300*Owners *Compagnie Shell*Port belonging to *Rotterdam*Nom. Horse Power as per Rule *162*Is Refrigerating Machinery fitted for cargo purposes *no*Is Electric Light fitted *Yes*

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines *please see Amsterdam ref.* 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders ✓ Diameter of cylinders ✓ Length of stroke ✓ No. of cylinders ✓ No. of cranks ✓

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

Revolutions per minute ✓ Flywheel dia. ✓ Weight ✓ Means of ignition ✓ Kind of fuel used ✓

Crank Shaft, dia. of journals as per Rule ✓ as fitted ✓ Crank pin dia. ✓ Crank Webs Mid. length breadth ✓ Mid. length thickness ✓ Thickness parallel to axis ✓ shrunk ✓ Thickness around eyehole ✓

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ 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 ✓ 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*finger* Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves *Yes* ✓ Are the exhaust pipes and silencers water cooled or lagged withnon-conducting material *Yes* ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel. ✓Cooling Water Pumps, No. *2* ✓ 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. *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 *one 0' x 7' x 10'* ✓ How driven *steam driven* ✓ Lubricating Oil Pumps, including Spare Pump, No. and size *2 1' 2' x 10' x 4'* ✓Ballast Pumps, No. and size *one 0' x 7' x 10'* ✓ Are two independent means arranged for circulating water through the Oil Cooler *Yes* ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces *3 2' 2 3/4'* ✓ In Pump Rooms *1 2' 2 3/4'* ✓In Holds, &c. *1 2' 2'* ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *2 1' 2' 3/4' 1' 2' 4'* ✓Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *Yes* ✓ Are the Bilge Suctions in the Machinery Spacesled 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 ✓

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 *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 ✓ 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 ✓ Diameters ✓ Stroke ✓ Driven by ✓

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

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 ✓

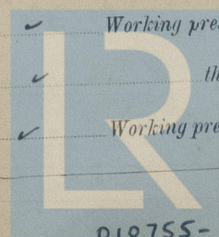
Can the internal surfaces of the receivers be examined and cleaned ✓ Is a drain fitted at the lowest part of each receiver ✓

High Pressure 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. ✓ Total cubic capacity ✓ Internal diameter ✓ thickness ✓ Working pressure by Rules Actual

Seamless, lap welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure by Rules Actual



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IS A DONKEY BOILER FITTED? *Yes.* If so, is a report now forwarded? *Amsterdam. Rep. 13634.*
Is the donkey boiler intended to be used for domestic purposes only *No.* (*Thicknes washes P.S. 6 1/2 in.*)

PLANS. Are approved plans forwarded herewith for Shafting *✓* Receivers *✓* Separate Tanks *✓*
(If not, state date of approval)
Donkey Boilers *✓* General Pumping Arrangements *17-1-36* Oil Fuel Burning Arrangements *17-1-36*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes.*
State the principal additional spare gear supplied *one screws left, one cyl. cover complete, one piston complete, crank pin & bearing bolts & nuts, 2 sets of coupling bolts, springs and valves for oil fuel, air valves, etc.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - } *29/1 - 3-8-12-24/2 - 4-6-10-12-16-17/3 - 36*
Total No. of visits *11.*

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*
Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *✓* Tube shaft *✓*
Screw shaft *✓* Propeller *✓* Stern tube *29-1-36* Engine seatings *3-2-36* Engines holding down bolts *4-3-36*
Completion of fitting sea connections *3-2-36* Completion of pumping arrangements *10-3-36* Engines tried under working conditions *12-3-36*
Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*
Thrust shaft, Material *✓* Identification Mark *✓* 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 *Yes*
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No tanker* 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 *no* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been made and fitted in accordance with the Society's Rules, approved plans and Secretary's letters. The whole machinery has been tested under full working condition and found working and manoeuvring satisfactorily and in my opinion eligible for the record of + L.M.C. 3-36 oil engines C.L. Safety. valves Donkey boiler adjusted under steam to 180 lb.*

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

The amount of Entry Fee .. £ : When applied for, *27.3.1936*
Special ... *1/5* ... £ *97.25* :
Donkey Boiler Fee ... £ : When received, *21.4.1936*
Travelling Expenses (if any) £ *21.00* : *21/4*

Committee's Minute *FRI. 3 APR 1936*
Assigned *Sec F. B. Rpt.*

O.H. Bourne
Engineer Surveyor to Lloyd's Register of Shipping.

