

REPORT ON OIL ENGINE MACHINERY.

No. 27832⁶

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Date of writing Report 7/2 1939 When handed in at Local OfficePort of RotterdamNo. in Survey held at
Reg. Book.Date, First Survey 12th of May 38 Last Survey 6 Feb 1939
Number of Visits 10.on the Single
Twin
Triple
Quadruple Screw vessel

M.V. "CITRINE"

Tons { Gross 783
Net 416.Built at "Hardinaveld"By whom built M. Schuytwerf, de Meuwede Yard No. 386 When built 1930-9
503647/52Engines made at CologneBy whom made Humboldt-Deutzmaschinen A.G. Engine No. 1930Donkey Boilers made at ✓By whom made ✓ Boiler No. ✓ When made ✓Brake Horse Power 825Owners Messrs. William Robertson Port belonging to GlasgowNom. Horse Power as per Rule 144Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yesTrade for which vessel is intended Seagoing serviceType of Engines Heavy oil engine RV 614 L 66 2 or 4 stroke cycle 4 Single or double acting singleMaximum pressure in cylinders ✓ Diameter of cylinders ✓ Length of stroke ✓ No. of cylinders ✓ No. of cranks ✓Mean Indicated Pressure ✓ Is there a bearing between each crank ✓Span of bearings, adjacent to the Crank, measured from inner edge to inner edge ✓Revolutions per minute 273 Flywheel dia. ✓ Weight ✓ Means of ignition ✓ Kind of fuel used Diesel oilCrank Shaft, { Solid forged ✓ as per Rule ✓ Crank pin dia. ✓ Crank Webs Mid. length breadth ✓ shrunk Thickness parallel to axis ✓
Semi built dia. of journals ✓ as fitted ✓ Mid. length thickness ✓ Thickness around eyehole ✓
All built ✓Flywheel Shaft, diameter ✓ as per Rule ✓ Intermediate Shafts, diameter ✓ as per Rule ✓ Thrust Shaft, diameter at collars ✓ as per Rule ✓
as fitted ✓ as fitted ✓ as fitted 190 mmTube Shaft, diameter ✓ as per Rule ✓ Screw Shaft, diameter ✓ as per Rule ✓ Is the tube screw shaft fitted with a continuous liner ✓
as fitted ✓ as fitted 184/190/170 mm noBronze Liners, thickness in way of bushes ✓ as per Rule ✓ Thickness between bushes ✓ as per Rule ✓ Is the after end of the liner made watertight in thepropeller 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 tubeshaft no If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 810 mmPropeller, dia. 2200 mm Pitch 1480 mm No. of blades 4 Material bronze whether Moveable no Total Developed Surface 1.77 m²Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubricationforged Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves yes Are the exhaust pipes and oil coolers water cooled or lagged withnon-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 funnelCooling Water Pumps, No. 2 12200 x 120 mm Is the sea suction provided with an efficient strainer which can be cleared within the vessel yesBilge Pumps worked from the Main Engines, No. one Diameter 200 Stroke 120 Can one be overhauled while the other is at work yesPumps connected to the Main Bilge Line { No. and Size 1 rotary 200 1/2 1 rotary 50 1/2 1 200 x 120 }
How driven Electrically Electrically main engineIs the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumpingarrangements ✓Ballast Pumps, No. and size 1 200 1/2 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 2 1/5 hp/minAre 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 2 2 3" + 2 2 1/2" In Pump Room ✓In Holds, &c. 2 2 3" + 2 2" 2" hand pump for peak flat.Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 2 3"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 yesAre all Sea Connections fitted direct on the skin of the ship on steel chests Are they fitted with Valves or Cocks valvesAre 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 aboveAre 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 ✓What pipes pass through the bunkers none How are they protected ✓What pipes pass through the deep tanks none 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 yes 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. Sumldang up 1930 No. of stages ✓ Diameters ✓ Stroke ✓ Driven by main engineSmall Auxiliary Air Compressors, No. 2-2 cyl No. of stages 2 Diameters 60/150 mm Stroke 90 mm Driven by aux enginesWhat provision is made for first Charging the Air Receivers hand air compressor charging 30 L air vesselScavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by crankshaftAuxiliary Engines crank shafts, diameter ✓ as per Rule ✓ as fitted Sumldang report No 263 Position one side 60 BHP. two sides 100 BHP. Is a report sent herewith yesHave the Auxiliary Engines been constructed under special survey yes

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AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate

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

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.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

by Rules

Actual

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Fuel Tanks

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

State the principal additional spare gear supplied

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building

During progress of work in shops--

During erection on board vessel--

Total No. of visits

May 12, July 7-10, Aug 3, Sept 7, Oct 5-11, Nov 22, Dec 14, Jan 6 Feb 6.

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

Engine seatings

Engines holding down bolts

Completion of fitting sea connections

Completion of pumping arrangements

Engines tried under working conditions

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

Identification Marks on Air Receivers

Nos 2310/13

No 2346.

LLOYDS TEST

LLOYDS TEST

60 ATM

70 ATM

WP 30 ATM

WP 35 ATM

L.S. 7-6-30

L.S. 21-6-30.

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

If so, state name of vessel

General Remarks

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

The machinery has been made under special survey in accordance with the approved plans.

Society's Rules and Secretary's letters workmanship good, and has been satisfactorily fitted on board. The machinery was

found in a good working and manoeuvring order when tried under full working condition and is in my opinion eligible

to be classed + L.M.C 1-39 Oil engines in the Society's Register

The one cylinder 10 BHP aux engine, driving the lightning generator, has not been built under special survey. A crankshaft of tested material ordered from the engine builder

has been placed in this engine, same ex^m and found in order. All working parts have been opened out and ex^m the cooling water spaces tested as required and all found

The amount of Entry Fee

£

When applied for,

Special

£

When received,

Donkey Boiler Fee

£

London

Travelling Expenses (if any)

£

£ 31.00.

Committee's Minute

TUE 28 FEB 1939

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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