

REPORT ON OIL ENGINE MACHINERY

No. 7647

22 APR 1949

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Date of writing Report 29th December 1948 When handed in at Local Office 30th December 1948

Port of QUEBEC, P.Q.

Survey held at Quebec, P.Q. Date, First Survey 18 December 1947 Last Survey 23rd December 1948

No. in Book.

Number of Visits 180

5001 on the Single Twin Triple Quadruple Screw vessel M/V "CORUCHE" Tons { Gross 1122.3 Net 613.53

built at Quebec, P.Q. By whom built St. Lawrence Metal & Marine Works Inc. Yard No. 77 When built 1948

Engines made at Beloit, U.S.A. By whom made Fairbanks-Morse & Co. Engine No. 909399 When made 1948

Monkey Boilers made at - By whom made - Boiler No. - When made -

Indicated Horse Power 1200 Owners Soc. Geral De Comercio Industria Port belonging to Lisbon

Nom. Horse Power as per Rule 274 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended Cargo

OIL ENGINES, &c.—Type of Engines Vertical Marine Diesel 2 or 4 stroke cycle 2 Single or double acting Single see Cleveland Rpt. No. 1290.

Maximum pressure in cylinders Diameter of cylinders 16" Length of stroke 20" No. of cylinders 6 No. of cranks 6

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 275 Flywheel dia. Weight Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, { Solid forged as per Rule Crank pin dia. Crank Webs Mid length breadth Thickness parallel to axis
Semi built dia. of journals as fitted Crank Webs Mid length thickness Thickness around eyehole
All built as fitted

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted 7" Thrust Shaft, diameter at collars as fitted 8 1/2"

Tube Shaft, diameter as per Rule Screw Shaft, diameter as fitted 7 9/16" Is the { tube shaft fitted with a continuous liner } No

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 Yes 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 Yes If so, state type Syntron Seal Length of Bearing in Stern Bush next to and supporting propeller S.K.F. Roller bearing

Propeller, dia. 7'-0" Pitch 5'-5" No. of blades four Material Bronze whether Moveable fixed Total Developed Surface 20.44 sq. feet

Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched Yes Means of lubrication

Forced Thickness of cylinder liners 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

Cooling Water Pumps, No one each x 575 G.P.M. F.W. & S.W. 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. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size Two x 200 G.P.M. How driven Motor

Is 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 pumping

Arrangements F.O. 2 x 35 G.P.M. S.W. 1 x 200 G.P.M. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one x 175 G.P.M. one x 200 G.P.M.

Ballast Pumps, No. and size S.W. 1 x 200 G.P.M. 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 Two x 2" Two x 3" also one x 2" each Cofferdam & Tunnel Well In Pump Room one x 2 1/2"

In Holds, &c. one x 2" each Hold Port & Stbd.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one x 5" also 10 1/2" to Sundry S.W. Cns pump

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

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

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

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 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 also from Main Dk.

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 No. of Stages Two Diameters 9 1/2" & 8 1/2" Stroke 6 1/16" Driven by Main Engine

Auxiliary Air Compressors, No. one No. of Stages Two Diameters 3 1/2" & 2 1/2" Stroke 3 3/8 & 2 5/8 Driven by belt to Motor

Small Auxiliary Air Compressors, No. - No. of Stages - Diameters - Stroke - Driven by -

What provision is made for first Charging the Air Receivers Emergency Generator Diesel driven hand starting.

Scavenging Air Pumps, No. one Diameter 37 1/2" Stroke 20" Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule No. Two

Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith See Cleveland Rpt. No. 1297

AIR RECEIVERS:—Have they been made under survey ☒ Yes ☐ No State No. of Report or Certificate 1239, 1242, 1249

Is each receiver, which can be isolated, fitted with a safety valve as per Rule ☒ Fusible plug ☐

Can the internal surfaces of the receivers be examined and cleaned ☒ Yes ☐ No Is a drain fitted at the lowest part of each receiver ☒ Yes ☐ No

Generator ☐ Injection-Air Receivers, No. ☒ one Cubic capacity of each 5 Internal diameter 20" thickness .25

Seamless, lap welded or riveted longitudinal joint Lap Welded Material O.H.S. Range of tensile strength 24.5/25.8 Working pressure by Rules 250 lbs. Actual 250 lbs.

Starting Air Receivers, No. ☒ Three Total cubic capacity 58.25 cub. ft. Internal diameter 29.125" thickness shell 7/16" head

Seamless, lap welded or riveted longitudinal joint Material O.H.S. Range of tensile strength 27.01/28.57 Working pressure by Rules 250 lbs. Actual 250 lbs.

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 23.8.47 N.Y. Receivers - Separate Fuel Tanks 10.12.47 N.Y.

(If not, state date of approval)

Donkey Boilers - General Pumping Arrangements 17.9.47 N.Y. Pumping Arrangements in Machinery Space 17.9.47 N.Y.

Oil Fuel Burning Arrangements -

SPARE GEAR.

Has the spare gear required by the Rules been supplied ☒ Yes, when spare Thrust Pads also Steering Motor spares placed on board prior to leaving Halifax.

State the principal additional spare gear supplied

See also Quebec Certificate 23, March 1949.

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
1947 Dec. 18, 22, 23, 24, 27, 29.	1948 Jan. 5, 9, 12, 13, 14, 16, 17, 21, 23, 26, 28, 31.	Feb. 2, 3, 9, 12, 13, 14, 19, 20, 21, 23, 25, 26, 28.	Mar. 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 23, 24, 30, 31.
2, 5, 7, 10, 12, 13, 14, 17, 21, 22, 23, 26, 27.	May 1, 3, 4, 5, 7, 8, 10, 11, 12, 15, 18, 20, 21, 24, 29.	June 1, 3, 5, 11, 15, 16, 22, 29, 30.	July 1, 2, 6, 7, 9, 10, 13, 14, 17, 19, 21, 22, 26, 28, 29, 30.
31.	Sept. 1, 7, 9, 10, 13, 14, 15, 16, 20, 21, 23, 28, 29, 30.	Oct. 1, 2, 4, 5, 7, 8, 14, 16, 18, 19, 20, 21, 22, 23, 25, 27, 28, 29, 30.	Nov. 1, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 22, 23, 24, 28, 29.
23.	Total 180		

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods

Crank shaft 14.9.48 Flywheel shaft 15.11.48 Thrust shaft 31.10.48 Intermediate shafts 24.8.48, 25.8.48 Tube shaft

Screw shaft 14.9.48 Propeller 15.11.48 Stern tube 31.10.48 Engine seatings 13.4.48 Engines holding down bolts 24.11.48

Completion of fitting sea connections 12.11.48 Completion of pumping arrangements 10.12.48 Engines tried under working conditions 1.12.48

Crank shaft, Material - Identification Mark - Flywheel shaft, Material - Identification Mark -

Thrust shaft, Material O.H.S. Identification Mark 2768 Intermediate shafts, Material O.H.S. Identification Marks 4922, 4923, 492

Tube shaft, Material - Identification Mark - Screw shaft, Material O.H.S. Identification Mark 4929

Identification Marks on Air Receivers 1239-105-3.8.48, 1242-108-3.8.48, 1249-111-24.8.48 All W.H.

Generator Air Receiver:- 3052 - PST 3628 - 9-22-47 G.N.

Is the flash point of the oil to be used over 150° F. ☒ Yes ☐ No

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ☒ Yes ☐ No

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ☒ No ☐ Yes 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 ☒ Yes ☐ No If so, state name of vessel M/V "CARTAXO"

General Remarks (State quality of workmanship, opinions as to class, &c.) Please see Cleveland Report 1290

The Machinery of this Vessel has now been installed as required by the Rules, tried under full working conditions and

found satisfactory, except for some "whipping" of the intermediate shafting, observed during the trials, which appeared

to be due to misalignment.

Please see letter 17th & 20th December, 1948 for details.

It was agreed that the Vessels proceed to Halifax N.S. at a maximum engine speed of 250 RPM

It is submitted for the favourable consideration of the Committee that the Machinery of this Vessel, is eligible, in

my opinion, to be assigned the Record L.M.C. 12.48 with notation T.S. (O.G.) after the alignment of the shafting has been

examined and the shafting placed in good order prior to the Vessel leaving Halifax, N.S., and subject to the propeller

and oil glands being removed and the adjacent roller bearings being examined in drydock after a period of about, but not

exceeding TWELVE (12) months in Service, also to spare thrust pads and to the remaining requirements of the Rules being

complied with. Please see Quebec Certificates 20th Dec., 1948, and 23rd March, 1949.

The amount of Entry Fee \$: When applied for,

Installation of Machinery Special 153.00 : Jan 4 1949

Donkey Boiler Fee \$: When received,

Travelling Expenses (if any) \$ 70.00 : Mch 24 1949

Committee's Minute FRI. 10 JUN 1949

Assigned Defered LMC 4.49 Pel. Eng Subject O.G.

Engineer Surveyor to Lloyd's Register of Shipping.

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