

REPORT ON OIL ENGINE MACHINERY.

No. 347716

13 MAY 1952

Received at London Office

Writing Report 19 When handed in at Local Office 19 Port of Rotterdam

Survey held at Rotterdam Date, First Survey 13-1-1950 Last Survey 24-1-1952
Number of Visits 86

Single on the Twin Triple Quadruple Screw vessel M.V. "Comodoro Rivadavia" Tons Gross 4167.4 Net 652.6

Rotterdam By whom built P. Smit & Co. N.V. Yard No. 599 When built 1952

Rotterdam By whom made P. Smit & Co. N.V. Engine No. 75676 When made 1952

Rotterdam By whom made P. Smit & Co. N.V. Boiler No. 740741 When made 1952

9300 Owners Yacimientos Petroliferos Fiscales Port belonging to Buenos Aires

1608 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Seagoing Service

GINES, &c. Type of Engines Heavy Oil, B.W. type 574 T.F. 160 2 or 4 stroke cycle 2 Single or double acting Single

680 lbs pressure in cylinders Diameter of cylinders 740 mm Length of stroke 1600 mm No. of cylinders 5 No. of cranks 5

93 lbs indicated Pressure Ahead Firing Order in Cylinders P. 1-5-2-3-4 Span of bearings, adjacent to the crank, measured

976 mm from edge to inner edge Is there a bearing between each crank Yes Revolutions per minute 115

2430 mm dia Weight 11,635 kg Moment of inertia of flywheel (lbs. in² or Kg. cm²) 4,000,000 Kg/cm² Means of ignition Compression Kind of fuel used Diesel fuel

Solid forged dia. of journals as per Rule App'd Crank pin dia. 550 mm Crank webs Mid. length breadth 1020 mm Thickness parallel to axis 280 mm

Semi built dia. of journals as fitted 550 mm Crank webs Mid. length thickness 280 mm Thickness around eye hole 290 mm

All built dia. of journals as fitted 550 mm Crank webs Mid. length thickness 280 mm Thickness around eye hole 290 mm

1 Shaft, diameter as per Rule App'd Intermediate Shafts, diameter as per Rule App'd Thrust Shaft, diameter at collars as fitted 500 mm

1 Shaft, diameter as per Rule App'd Screw Shaft, diameter as per Rule App'd Is the (tube) shaft fitted with a continuous liner Yes

2.2 mm liners, thickness in way of bushes as per Rule App'd Thickness between bushes as per Rule App'd Is the after end of the liner made watertight in the

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

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-

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 shaft No If so, state type Length of bearing in Stern Bush next to and supporting propeller 1965 mm

4800 mm dia Pitch 4800 mm No. of blades 4 Material Bronze whether moveable Solid Total developed surface 7,224 sq feet

38,000 lbs in² or Kg. cm² Kind of damper, if fitted

of reversing Engines Servo motor Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of

enforced Thickness of cylinder liners 52 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled

with non-conducting material lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

the engine 15 salt - 1 fresh - 1 spare for both services Cooling Water Pumps, No. 3 Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

3 pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work

connected to the Main Bilge Line No. and size 3 Ballast pump 130 T/h Bilge pump 130 T/h Emergency bilge pump 150 T/h

How driven Ballast, bilge pumps steam driven Emergency bilge pump electric driven

draining 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

1 in eng. room 130 T/h Pumps, No. and size 2 1 in fwd pump room Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 400 m³/h each

independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary

pumps, No. and size: - In machinery spaces 2 a 100 mm 2 a 70 mm 2 a 80 mm in tunnel In pump room 2 a 70 mm 1 a 80 mm

3 a 70 mm 1 a 70 in fwd pump room 2 a 70 mm on forepeak flat 1 a 50 mm on middle trunk Hand pump on chain locker

ident Power Pump Direct Suctions to the engine room bilges, No. and size 2 a 100 mm 1 a 200 mm

the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction in the machinery spaces led from easily

cleared mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Sea Connections fitted direct on the skin of the Ship Yes Are they fitted with valves or cocks valves Are they fixed

high on the ship's side to be seen without lifting the platform plates No Are the overboard discharges above or below the deep water line below

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

pipes pass through the bunkers Suction pipe of after Cuffendam How are they protected Leaky gauge pipe, unprotected

pipes pass through the deep tanks cargo piping Have they been tested as per Rule Yes

pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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

or from one compartment to another Yes Is the shaft tunnel watertight Yes Is it fitted with a watertight door Yes worked from boat deck

on a vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. 2 No. of stages 2 diameters 212/230 mm stroke 160 mm driven by Aux engines

Primary Air Compressors, No. No. of stages diameters stroke driven by

Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 88/90 mm stroke 100 mm driven by Diesel engine

Provision is made for first charging the air receivers Emergency Air Compressor engine started by hand

Blowing Air Pumps, No. 1 blower each engine diameter 456 m³/min stroke driven by Main engines

Primary Engines crank shafts, diameter as per Rule No. 2 B.W. + long stroke Diesel engine Position 1 on port, 1 on starboard at floor level

Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Returned

APU 30-5-52

00 44 88-00 99 43-0030



AIR RECEIVERS:—Have they been made under survey Yes State No. of report or certificate R. dan. C. 11

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

Injection Air Receivers, No. — Cubic capacity of each — Internal diameter — thickness —

Seamless, welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure —

Starting Air Receivers, No. 2 main + 1 aux Total cubic capacity 40 m³ + 350 lbs Internal diameter 2.000 m. m. thickness 2.6 m. m.

Seamless, welded or riveted longitudinal joint Riveted Material S.M. steel Range of tensile strength Shell 49/55 kg/cm² Working pressure Ends 41/47 kg/cm²

IS A DONKEY BOILER FITTED 2 donkey blos If so, is a report now forwarded Yes

Is the donkey boiler intended to be used for domestic purposes only Large pumping, heating, lights, ballast pumping, windlass

PLANS. Are approved plans forwarded herewith for shafting 15/12/48 - 2/7/49 Receivers 12/7/48 Separate fuel —

Donkey boilers 30/9/48 General pumping arrangements 7/10/48 - 29/3/49 Pumping arrangements in machinery space 7/10/48

Oil fuel burning arrangements 23/6/49 29/3/49

Have Torsional Vibration characteristics been approved Yes Date of approval By E letters 16/12/51

SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied Spare screwshaft.

Description of fire extinguishing apparatus fitted: One foam generator cap 4500 lbs/min with 200 lbs of foam in engine room & donkey boiler room. One foam extinguisher of 136 lbs 4 C.O₂ 2000 water of 2 gallons each. 2 Pepsone guns near switchboards. Steam smothering system in donkey boiler.

The foregoing is a correct description, [Signature] Manufacturer.

Dates of Survey while building: During progress of work in shops - 1950: Jan 13, 18, 20, 24. - Feb 7. - March 1, 24. Apr 14, 25. May 3, 17, 19, 25. June 9, 21. July 24. Aug 11. Sept 7. Oct 10, 18. Nov 6, 17. Dec 4. 1951: Jan 11. Feb 1, 6, 7, 9, 12, 13, 21, 23, 26, 27, 28. March 12, 14, 22, 24. Apr 5, 13, 18, 20, 27, 30. May 1, 7, 8, 10, 16, 20, 29. June 2, 10, 17, 24. July 6, 10, 27, 30. Aug 3. Sept 4. Oct 1, 10, 31. Nov 12, 24, 26. Dec 4. During erection on board vessel - 1951: Aug 23, 27. Sept 4, 5, 7. Oct 3. Nov 1, 3, 15. Dec 4, 12, 13. 1952: Jan 3, 11, 14, 15, 16, 18, 22, 24. Total No. of visits P.C.

Dates of examination of principal parts—Cylinders 20-4-51 Covers 1-5-51 Pistons 8-5-51 Rods 8-5-51 Connecting rods 22-12-50

Crank shaft 22-12-50 Flywheel shaft — Thrust shaft 1-11-50 Intermediate shafts 4-9-51 Tube shaft —

Screw shaft 10-10-50 Propeller 26-4-51 Stern tube 30-4-51 Engine seatings 5-9-51 Engine holding down bolts 7-9-51

Completion of fitting sea connections 7-9-51 Completion of pumping arrangements 3-1-52 Engines tried under working conditions 4-1-52

Crank shaft, material S.M. steel Identification mark Pos. LLOYD'S 8125 9.5 22-12-50 Flywheel shaft, material Cast steel web Identification mark Standard LLOYD'S 8074 9.2 1-11-50

Thrust shaft, material S.M. steel Identification mark Pos. LLOYD'S 8129 9.3 27-12-50 Intermediate shafts, material S.M. steel Identification marks Standard LLOYD'S 8075 9.2 1-11-50

Tube shaft, material — Identification mark — Screw shaft, material S.M. steel Identification mark LLOYD'S 2283 2 10-10-50

Identification marks on air receivers 2 367-368 LLOYD'S TEST 39 kg/cm² WP 25 kg/cm² EMD 20-11-50

Aux air receiver 2 1098 LLOYD'S TEST 60 ATM WP 30 ATM 20-12-51 K.H.

Welded receivers, state Makers' Name —

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

Description of fire extinguishing apparatus fitted Please see above

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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 Not desired

Is this machinery duplicate of a previous case Yes If so, state name of vessel M.V. "Director Madaniaga"

General Remarks (State quality of workmanship, opinions as to class, &c) The machinery has been constructed in accordance with the Society's Rules, Secretary's letters and the approved plans of materials tested as required and has been satisfactorily fitted in the vessel. The workmanship is throughout good. A notice board has been fitted at the control station stating that the engines are not to be operated continuously between 51 and 62 RPM and engine tachometers marked accordingly. The machinery has been tried under full working condition and was found in good working and manoeuvring order and is in opinion eligible to be recorded in the Society's Register Book with + LMC 1-52.

The amount of Entry Fee ... fl 5610. Special Weldings ... fl 755. Donkey Boiler Fee ... £ Travelling Expenses (if any) fl 95.- When applied for 10/11 1952 When received 28/11 1952 Engineer Surveyor to Lloyd's Register of Shipping S. M. Dewdree

Committee's Minute FRI. 13 JUN 1952 Assigned + LMC 3.52 Oil Eng. (with torsional enclosures) C.L. 2 WTDB 130lb 2 DB 180lb Lloyd's Register Foundation

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

