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# REPORT ON OIL ENGINE MACHINERY.

No. 325836

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Writing Report 3-7-1950 When handed in at Local Office 19 Port of Rotterdam  
Survey held at Rotterdam Date, First Survey 7-3-49 Last Survey 9-6-1950  
Book.  
Single on the Twin Triple Quadruple Screw Vessel M.V. "Director Madariaga"  
Tons Gross 11633.21 Net 6533.05  
Built at Rotterdam By whom built P. Smit Jr. N.V. Yard No. 596 When built 1950  
Machines made at Rotterdam By whom made P. Smit Jr. N.V. Engine No. 669 When made 1950  
Key Boilers made at Rotterdam By whom made P. Smit Jr. N.V. Boiler No. 734/735 When made 1950  
Horse Power 4300 = 2 engines Owners Yacimientos Petroliferos Fiscales Port belonging to Buenos Aires  
Horse Power as per Rule 1608 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Use for which vessel is intended Seagoing trade.

Engines, &c.—Type of Engines 2 sets - 2 S.C.A. B.W. type 574 V.T.F. 160 2 or 4 stroke cycle 2 Single or double acting Single  
Mean pressure in cylinders 6.20 lb./sq. in. Diameter of cylinders 29 1/8" Length of stroke 63 1/2" No. of cylinders 5 No. of cranks 5  
Indicated Pressure 43 lb./sq. in. Flywheel dia. 2430 mm Weight 11635 Kgs. Means of ignition Compression Kind of fuel used Diesel fuel  
of bearings, adjacent to the Crank, measured from inner edge to inner edge 476 mm Is there a bearing between each crank Yes  
Revolutions per minute 115 Crank pin dia. 550 mm Crank Webs Mid. length breadth 1020 mm shrunk Thickness parallel to axis 200 mm  
Solid forged as per Rule approved Crank pin dia. 550 mm Crank Webs Mid. length thickness 280 mm Thickness around eyehole 290 mm  
ft, Semi built dia. of journals as fitted 550 mm with 220 mm central hole  
All built as per Rule approved with 220 mm central hole  
Main Shaft, diameter as fitted 300 mm Intermediate Shafts, diameter as fitted 370 mm Thrust Shaft, diameter at collars as fitted 500 mm  
Shaft, diameter as fitted 300 mm Screw Shaft, diameter as fitted 300 mm Is the tube shaft fitted with a continuous liner Yes  
e Liners, thickness in way of bushes as per Rule approved Thickness between bushes as fitted 22 mm Is the after end of the liner made watertight in the  
ter 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-corrosive  
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  
If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1965 mm  
ller, dia. 4800 mm Pitch 4700 mm No. of blades 4 Material bronze whether Moveable Solid Total Developed Surface 7.224 m<sup>2</sup> sq. feet  
nd of reversing Engines Servo Motor Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
ed Thickness of cylinder liners 52 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
ducting 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  
g Water Pumps, No. 3 One freshwater One saltwater Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Pumps worked from the Main Engines, No. 3 Stroke 160 mm Can one be overhauled while the other is at work  
s connected to the Main Bilge Line No. and size 3 Bilge pump 130 T/h Ballast pump 130 T/h Emergency bilge pump 150 T/h  
ooling water led to the bilges No How driven Bilge - ballast pumps steam driven Emergency bilge pump by elect. motor  
lements One steam bilge pump in main pump room 30 T/h One steam bilge pump in fore pump room 30 T/h  
If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
t Pumps, No. and size 2 One in eng. room 130 T/h One in fore pump room 60 T/h Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 of 400 T/h each  
o independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
s, No. and size:—In Machinery Spaces 2 off 100 mm 8 off 70 mm In tunnel 2 off 80 mm diameter In Pump Room 2 off 70 mm dia. 1 off 80 mm dia.  
ds, &c. 3 off 70 mm In fore pump room one off 70 mm forepeak flat 2 off 70 mm Rudek pump 1 off 50 mm Hand pump on  
ndent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 off 100 mm One off 200 mm diameter Hand pump on  
the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces  
n easily accessible 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  
y fixed sufficiently 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  
y 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  
ipes pass through the bunkers Suction pipe of after cofferdam How are they protected heavy gauge pipe, not protected  
ipes 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  
rangement 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,  
one compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from boat deck  
nd 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 230/212 Stroke 160 mm Driven by Aux. engines  
Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 80/98 Stroke 100 mm Driven by  
provision is made for first Charging the Air Receivers Emergency dynamo engine started by hand dynamo engine  
nging Air Pumps, No. One blower each engine Diameter of impellers 820 mm Stroke Cap. 456 m<sup>3</sup>/min Driven by main engine  
ary Engines crank shafts, diameter as per Rule No. 2 + emergency dynamo engine in boat deck  
as fitted 170 mm Position One in port, one in starboard side at floor level  
ge Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes Captain's No. 12939  
Amsterdam 42 17214



AIR RECEIVERS:—Have they been made under survey yes State No. of Report or Certificate Rotterdam 22.52.32  
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. 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 4.0 m<sup>3</sup> + 350 lb Internal diameter 2000 mm thickness 2.6 mm  
Seamless, lap welded or riveted longitudinal joint welded Material SM steel Range of tensile strength ENDS 41/47 Working pressure 2.5 kg/cm<sup>2</sup>  
IS A DONKEY BOILER FITTED? 2 donkey bhrs 2 sub gas bhrs so, is a report forwarded? yes  
Is the donkey boiler intended to be used for domestic purposes only cargo pumping & heating and bilge & ballast pumping  
PLANS. Are approved plans forwarded herewith for Shafting 15/12/48 Receivers 12/7/48 Separate Fuel Tanks 27-8-49  
(If not, state date of approval)  
Donkey Boilers 30/9/48 General Pumping Arrangements 7/10/48 29/3/49 Pumping Arrangements in Machinery Space 7/10/48  
Exh gas boilers 23/6/49  
Oil Fuel Burning Arrangements 29/2/49

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes  
State the principal additional spare gear supplied Spare screw shaft Identification Mark 1965 LMC/EMD 28/9/49  
Particulars of fire extinguishing apparatus: One foam generator with hoses & nozzles in eng. room and donkey boiler space, of 4500 lbs/min capacity. One foam extinguisher of 136 lbs. 4 CO<sub>2</sub> spare extinguishers 27-8-49 2 teta chloride near switchboard. Steam smothering system in donkey boiler space

The foregoing is a correct description of the machinery of the vessel  
W. J. Scheepswert van Manufacturer.  
W. J. Scheepswert van Superintendent.

Dates of Survey while building  
During progress of work in shops: 7/3, 20/4, 21/4, 3/6, 7/6, 5/7, 22/7, 29/7, 12/8, 23/8, 3/9, 7/9, 15/9, 16/9, 24/9, 22/9, 26/9, 29/9, 30/9, 3/10, 4/10, 12/10, 24/10, 27/10, 3/11, 8/11, 10/11, 21/11, 6, 20, 22, 28, 29/12, 2, 11, 18, 20/1, 2, 3, 7, 9, 10, 13, 15, 16, 17, 20, 23/2, 7, 9, 15, 17, 29, 30/3, 1949  
During erection on board vessel: 29/7, 9/9, 18/10, 24/10, 5/11, 19/11, 23/11, 28/2, 13/3, 13/4, 26/4, 10/5, 15/5, 22/5, 31/5, 1/6, 2/6, 9/6, 1950  
Total No. of visits 77  
Dates of Examination of principal parts—Cylinders 21/9/49 3/11/49 Covers 20/12/49 9/2/50 Pistons 11/1/50 13/2/50 Rods 11/1/50 13/2/50 Connecting rods 18/10/49  
Crank shaft 13/4/49 22/4/49 Flywheel shaft — Thrust shaft 13/4/49 22/4/49 Intermediate shafts 27/10/49 Tube shaft —  
Screw shaft 19/4/49 23/4/49 Propeller 11/8/49 26/8/49 Stern tube 3/11/49 7/11/49 Engine seatings 23/11/49 Engines holding down bolts 5/4/50  
Completion of fitting sea connections 28/10/49 Completion of pumping arrangements 15/5/50 Engines tried under working conditions 31/5/50  
Crank shaft, Material SM STEEL Identification Mark KL 7237 13/4/49 Flywheel shaft, Material — Identification Mark —  
Thrust shaft, Material SM STEEL Identification Mark KL 7238 13/4/49 Intermediate shafts, Material SM STEEL Identification Marks 1965 LMC 27/10/49  
Tube shaft, Material — Identification Mark — Screw shaft, Material SM STEEL Identification Mark 1965 LMC 27/10/49  
Identification Marks on Air Receivers NPS 319-320 LLOYD'S TEST 41 KG WP 25 KG AB 4/10/49  
" " " " N2 976 LLOYD'S TEST 60 ATM WP 30 ATM LK 17/11/49

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  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 no notation desired  
Is this machinery duplicate of a previous case no If so, state name of the vessel —

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery has been constructed in accordance with the Society's Rules, approved plans and Special Survey in accordance with the Society's Rules, approved plans and Special Survey, of materials tested as required and has been satisfactorily fitted in the vessel. The workmanship is throughout good. It has been tried under full working conditions and found in good working and manovering order and is in my opinion eligible to be classed in the Society's Registerbook with +LMC 6-50 Oil Eng.

T.V.C. approved 7/7/50 for 115 hp  
with limited speed range 7 51-62 hp

The amount of Entry Fee £5610-00 When applied for, 10/6 19 50  
Special weldings £755-00 When received, 15/7 19 50  
Donkey Boiler Fee —  
Travelling Expenses (if any) £104-00  
Committee's Minute FRI 17 NOV 1950

Assigned + LMC 6,50 Oil Eng. Subject  
2 WTD 18016  
C.L. 208 18016  
with endorsement

S. M. Rudolph  
Engineer Surveyor to Lloyd's Register of Shipping

