

REPORT ON OIL ENGINE MACHINERY.

No. 2895
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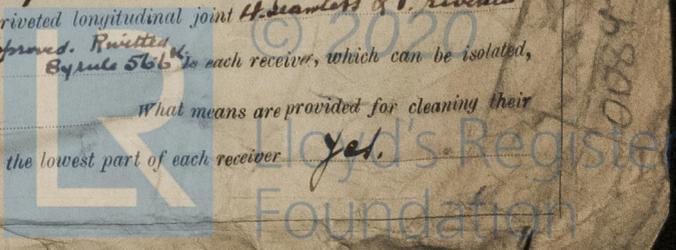
No. in Survey held at Rochefort Sur Mer Date, First Survey 26th Augt. 1920 Last Survey 25th Jan. 1921
 Reg. Book. Single on the Motor Screw vessels "BACARDI" Ex. "Mathurin" Tons { Gross 448.58
 Net 247.69

Master E. Albouy Built at Bordeaux By whom built A.C. Maritimes du Sud Ouest Yard No. ✓ When built 1919
 Engines made at PARIS By whom made Cie. de Construction Mecanique Suisse Sullyer Engine No. 257 When made 1918
 Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 420 Owners Sociedad Ron Bacardi Port belonging to Santiago de Cuba
 Nom. Horse Power as per Rule 82 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted Yes

OIL ENGINES, &c.—Type of Engines Sullyer 4.5" 56 (No 2547) 2 stroke cycle Single acting
 Maximum pressure in cylinders 35 Kilogs No. of cylinders 4 No. of cranks 4 Diameter of cylinders 340^{mm} ✓
 Length of stroke 540^{mm} ✓ Revolutions per minute 200 Means of ignition Internal Combustion Kind of fuel used Crude oil
 Is there a bearing between each crank Yes ✓ Span of bearings (Page 92, Section 2, par. 7 of Rules) 430^{mm} ✓
 Distance between centres of main bearings 650^{mm} Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 207^{mm}
 as fitted 215^{mm} ✓ Diameter of crank pins 215^{mm} Breadth of crank webs as per Rule 275^{mm} as fitted 280^{mm} Thickness of ditto as per Rule 115.9^{mm}
 as fitted 115^{mm} ✓ Diameter of flywheel shaft as per Rule 207^{mm} as fitted 215^{mm} Diameter of tunnel shaft as per Rule 173^{mm} as fitted 180^{mm} Diameter of thrust shaft as per Rule 181.6^{mm}
 as fitted 180^{mm} ✓ Diameter of screw shaft as per Rule 185^{mm} as fitted 180^{mm} Is the screw shaft fitted with a continuous liner the whole length of the stern tube NO
 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 joints burned ✓
 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 protected between the liners Yes ✓ If without liners, is the shaft arranged to run in oil ✓
 Type of outer gland fitted to stern tube ✓ Length of stern bush 590^{mm} ✓ Diameter of propeller 2098^{mm} ✓
 Pitch of propeller 2200^{mm} ✓ No. of blades 4 state whether moveable no Total surface 1656 1539^{m2} square feet
 Method of reversing Double Cam Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes ✓ Thickness of cylinder liners 50 to 65^{mm}
 Are the cylinders fitted with safety valves Yes ✓ Means of lubrication Forced ✓ Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material water cooled and lagged ✓ If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓
The Exhaust is led in funnel ✓ No. of cooling water pumps 2 ✓ Is the sea suction provided with an efficient strainer which can be cleared
 within the vessel Yes ✓ No. of bilge pumps fitted to the main engines 1, Double acting Diameter of ditto 115^{mm} ✓ Stroke 110^{mm} ✓
 Can one be overhauled while the other is at work Valves only ✓ No. of auxiliary pumps connected to the main bilge lines one ✓ How driven Electric Motor
 Sizes of pumps 50^{mm} Action Peripherique No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2, 60 and 80^{mm}
 and in holds, etc. Eight, 60 and 80^{mm} ✓ No. of ballast pumps ✓ How driven ✓ Sizes of pumps ✓
 Is the ballast pump fitted with a direct suction from the engine room bilges ✓ State size ✓ Is a separate auxiliary pump suction fitted in
 Engine Room and size Yes, 60^{mm} ✓ Are all the bilge suction pipes fitted with roses Yes ✓ Are the roses in Engine Room always accessible Yes ✓
 Are the sluices on Engine Room bulkheads always accessible none fitted ✓ Are all connections with the sea direct on the skin of the ship Yes ✓
 Are they valves or cocks Both ✓ Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates no, is lift a small plate ✓
 Are the discharge pipes 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times Yes ✓ Are the bilge suction pipes, cocks and valves arranged so as to prevent any
 communication between the sea and the bilges Yes ✓ Is the screw shaft tunnel watertight Yes ✓ Is it fitted with a watertight door Yes ✓
 worked from Tunnel & Deck If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
 No. of main air compressors One ✓ No. of stages 3 ✓ Diameters 390, 350, 75 ✓ Stroke 280^{mm} ✓ Driven by Main Shaft ✓
 No. of auxiliary air compressors ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
 No. of small auxiliary air compressors one ✓ No. of stages 2 ✓ Diameters 110, 735^{mm} ✓ Stroke ✓ Driven by Small Diesel ✓
 No. of scavenging air pumps one ✓ Diameter 700^{mm} ✓ Stroke 450^{mm} ✓ Driven by Main Shaft ✓
 Diameter of auxiliary Diesel Engine crank shafts as per Rule 60^{mm} ✓ as fitted 60^{mm} ✓ Are the air compressors and their coolers made so as to be easy of access Yes ✓

AIR RECEIVERS:—No. of high pressure air receivers one ✓ Internal diameter 301^{mm} ✓ Cubic capacity of each 80 litres about
 material Steel ✓ Seamless, lap welded or riveted longitudinal joint Solid drawn ✓ Range of tensile strength 58 To 68^k
 thickness 11^{mm} ✓ working pressure by Rules 88.8^k ✓ No. of starting air receivers 5 ✓ Internal diameter 4 = 570^{mm}
 Total cubic capacity about 2000 litres Material Steel ✓ Seamless, lap welded or riveted longitudinal joint Seamless approved. Riveted ✓
 Range of tensile strength ✓ thickness Seamless 15^{mm} Riveted 22^{mm} Working pressure by rules 52^k ✓ By rule 566 to each receiver, which can be isolated,
 fitted with a safety valve as per Rule Yes ✓ Can the internal surfaces of the receivers be examined Yes ✓ What means are provided for cleaning their
 inner surfaces Valves on top, doors at bottom and hole in centre ✓ Is there a drain arrangement fitted at the lowest part of each receiver Yes ✓

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IS A DONKEY BOILER FITTED? *If so, is it reported not fitted?* **REPORT ON OIL ENGINE MACHINERY** Rpt 48

| DESCRIPTION. | DATE OF TEST. | WORKING PRESSURE. | TEST PRESSURE. | STAMPED. | REMARKS. |
|----------------------------|---|---------------------------|----------------------------|--------------|----------|
| ENGINE CYLINDERS | ✓ | ✓ | ✓ | ✓ | |
| COVERS | ✓ | ✓ | ✓ | ✓ | |
| JACKETS | ✓ | ✓ | ✓ | ✓ | |
| PISTON WATER PASSAGES | ✓ | ✓ | ✓ | ✓ | |
| MAIN COMPRESSORS—1st STAGE | ✓ | ✓ | ✓ | ✓ | |
| 2nd | ✓ | ✓ | ✓ | ✓ | |
| 3rd | ✓ | ✓ | ✓ | ✓ | |
| AIR RECEIVERS—STARTING | 14. 1. 21 | 52 ^k per cent. | 104 ^k per cent. | R. (JC) | Good. |
| INJECTION (Subsufflation) | 25. 1. 21 | 70 ^k per cent. | 140 ^k per cent. | R. (JC) | Good. |
| AIR PIPES | ✓ | ✓ | ✓ | ✓ | |
| FUEL PIPES | ✓ | ✓ | ✓ | ✓ | |
| FUEL PUMPS | ✓ | ✓ | ✓ | ✓ | |
| SILENCER | ✓ | ✓ | ✓ | ✓ | |
| WATER JACKET | ✓ | ✓ | ✓ | ✓ | |
| SEPARATE FUEL TANKS | 14 th & 16 th Dec. 1920 | ✓ | Height 12-feet | R. 25. 1. 21 | Good |

PLANS. Are approved plans forwarded herewith for shafting 3. 11. 20 approved Receivers *Yes*. Separate Tanks *Yes*.
 SPARE GEAR *A list of spare gear now placed on board is forwarded herewith*

The foregoing is a correct description.
 Manufactured by *Mouquin & Co. Rochefort* Manufacturer.

Dates of Survey *During progress of work in shops - -*
During erection on board vessel - -
 Total No. of visits *1920 Augt. 26, Sept. 20, 23, Oct. 1, 8, 26, Nov. 10, 27, Dec. 14, 15, 16, 1921 Jan. 14, 24, 25*
 Dates of Examination of principal parts—Cylinders 8. 10. 20 Covers 8. 10. 20 Pistons 8. 10. 20 Rods 8. 10. 20 Connecting rods 8. 10. 20
 Crank shaft 8. 10. 20 Thrust shaft 26. 8. 20 Tunnel shafts 26. 8. 20 Screw shaft 23. 9. 20 Propeller 20. 9. 20 Stern tube 20. 9. 20 Engine seatings 20. 9. 20
 Engines holding down bolts 8. 10. 20 Completion of pumping arrangements 14. 1. 21 Engines tried under working conditions 24. 1. 21
 Completion of fitting sea connections 14. 1. 21 Stern tube 26. 10. 20 Screw shaft and propeller 26. 10. 20
 Material of crank shaft *Stated to be Steel* Identification Mark on Do. ✓ Material of thrust shaft *Stated to be Steel* Identification Mark on Do. ✓
 Material of tunnel shafts *Stated to be Steel* Identification Marks on Do. ✓ Material of screw shafts *Stated to be Steel* Identification Marks on Do. ✓
 Is the flash point of the oil to be used over 150° F. *70° C = 158° F.*
 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.) *All the cylinders, pistons, valves, and valve gears, connections rods & guides, pumps, cranks, intermediate & thrust shafts, propeller, Stern bush, Sea connections, & fastenings, Air Compressors Examined & found in good order. Receivers Examined internally & tested. Screw Shaft drawn forward line found split & renewed, Stern bush Guard Ring & all Studs renewed. Daily Service tank's Examined & tested to the required height. Bilge pumps discharge valve fitted to Ship Side. Electric driven aux. pumps Connected to the main bilge line found not satisfactory was replaced by a No 3 Grouvelle & Arguembourg pumps "Action Peripherique" 150% diam. tested under working conditions & found satisfactory. Engines tested under working conditions and the manoeuvring found satisfactory. Fuel & Circulating pumps tested & found satisfactory. The materials and workmanship are satisfactory, the machinery being in an efficient condition is eligible in my opinion to be classed in Lloyd's Register and to have the notation of LMC. 1-21*

The amount of Entry Fee ... £s. 108.- When applied for,
 Special ... £s. 1596.- 27. 1. 19 21
 Donkey Boiler Fee ... £s. : : When received,
 Travelling Expenses (if any) £s. 1217.50 24. 1. 19

John Gighton
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned *L.M.B. 1.21*
 TUE FEB 1 1921

