

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Reporting Report 3rd May 1954 When handed in at Local Office 3rd May 1954 Port of Southampton
 Survey held at Bowes Date, First Survey 5th Oct. 53 Last Survey 9th April 1954
 (Number of Visits 13)
 on the Twin Screw Survey Vessel 'PATHFINDER' Tons (Gross 543.85 Net 197.68)
 at Bowes By whom built J. Samuel White & Co. Ltd Yard No. 1975 When built 1954
 made at Newbury By whom made Plenty & Sons Ltd Engine No. 2895 When made 1953
 made at Stockton on Tees By whom made Stockton Engine & Shipbuilding Co Boiler No. 7347 When made 1953
 Indicated Horse Power 700 = 14HP Owners Government of Nigeria Port belonging to Lagos
 Indicated Horse Power as per Rule MN 140 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 for which vessel is intended Nigeria coastal & river survey.

ES, &c.—Description of Engines Twin triple inverted surface condensing Revs. per minute
 Cylinders Length of Stroke No. of Cylinders No. of Cranks
 Crank, pin dia. Report No. 128989 Mid. length breadth Thickness parallel to axis
 Crank webs shrunk Thickness around eye-hole

Thrust shaft, diameter at collars
 as per Rule
 as fitted
 Screw Shaft, diameter 6.1" as per Rule
 as fitted 6.25" Is the tube shaft fitted with a continuous liner No
 as fitted 5 3/4" dia at coupling as per Rule

Liners, thickness in way of bushes
 as per Rule
 as fitted
 Is the after end of the liner made watertight in the
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 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 Yes
 Are the liners fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes
 If so, state type Newark No. 1 Length of Bearing in Stern Bush next to and supporting propeller 2'-2"

Propellers, dia. 7' 3" Pitch 9' 3" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 16.5 sq. feet
 Can one be overhauled while the other is at work Yes
 Pumps worked from the Main Engines, No. 2 Diameter 5" Stroke 12" Can one be overhauled while the other is at work Yes
 No. and size 2 @ 5" x 12" Pumps connected to the Main Bilge Line { No. and size Two Duplex 4" x 5" (20 tons/hr) How driven Steam - direct acting

Lubricating Oil Pumps, including Spare Pump, No. and size 2
 independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected both to Main Bilge Pumps and Auxiliary
 Pumps:—In Engine and Boiler Room 2" from B.R. 2" from E.R. aft P.S. 2 1/2" from lower
 In Holds, &c. Forward: 2" from hold P.S. 2" from pipe trunk. 2" from F.P. aft: 2" from shaft tunnel F.P. ends 2" from lower deck aft.

Water Circulating Pump Direct Bilge Suctions, No. and size one - 5" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, size one - 2 1/2"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes
 Bilge Suctions in the Machinery Space led from 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 Both
 Are the Overboard Discharges above or below the deep water line Above
 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
 How are they protected None

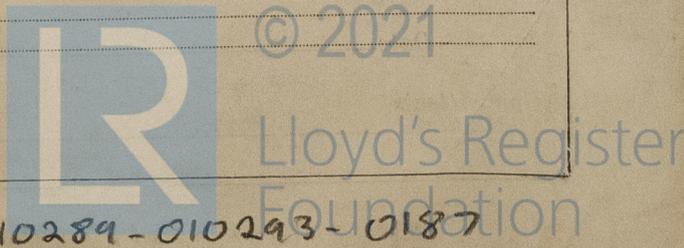
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Have they been tested as per Rule Yes
 Arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper deck

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 1987 sq. ft.
 Boilers one fitted with Forced Draft Yes Which Boilers are fitted with Superheaters Yes
 Description of Boilers one S.E. multitubular Working Pressure 200 lbs/12"
 REPORT ON MAIN BOILERS NOW FORWARDED? Yes. Middlesbrough Report No. 20013

DONKEY BOILER FITTED? No If so, is a report now forwarded?
 Can a donkey boiler be used for other than domestic purposes Yes
 Are approved plans forwarded herewith for Shafting 18.9.52 Main Boilers 30.8.52 Auxiliary Boilers 18.8.52 Donkey Boilers 18.8.52
 (If not state date of approval)
 General Pumping Arrangements 8.10.52 Oil fuel Burning Piping Arrangements 18.8.52

SPARE GEAR.
 The spare gear required by the Rules been supplied Yes
 The principal additional spare gear supplied Main engine: 6 sets piston rod metallic packing. 6 sets valve metallic packing. 2 propellers. 12 plain tubes. 12 tube stoppers. 3 oil fuel sprayers complete. 2 S.V. springs.

The foregoing is a correct description.
 FOR J. SAMUEL WHITE & COMPANY LTD.
H. Shaw Manufacturer.
 ENGINEERING MANAGER.



During progress of work in shops - -
 Dates of Survey while building
 During erection on board vessel - - - 1953. 5.10, 13.10, 21.10, 2.11, 19.11, 4.12, 17.12.
 1954. 18.1, 15.2, 5.3, 8.3, 26.3, 9.4.
 Total No. of visits 13

Dates of Examination of principal parts—Cylinders Slides Covers
 Pistons Piston Rods Connecting rods
 Crank shaft Thrust shaft 13.10.53 Intermediate shafts 13.10.53
 Tube shaft Screw shaft 13.10.53 Propeller 21.10.53
 Stern tube Engine and boiler seatings 13.10.53 Engines holding down bolts 4.12.53

Completion of fitting sea connections 21.10.53
 Completion of pumping arrangements 9.4.54 Boilers fixed 2.11.53 Engines tried under steam 9.4.53
 Main boiler safety valves adjusted 26.3.54 Thickness of adjusting washers P. 7/16 5 7/16

Crank shaft material Identification Mark Thrust shaft material S.M. steel Identification Mark P 719
 Intermediate shafts, material Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Identification Mark Steam Pipes, material Steel Test pressure 400 lbs Date of Test 4.12

Is an installation fitted for burning oil fuel Yes ✓ Is the flash point of the oil to be used over 150° F. Yes ✓
 Have the requirements of the Rules for the use of oil as fuel been complied with Yes ✓
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo. No ✓ 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. No ✓ If so, state name of vessel ✓

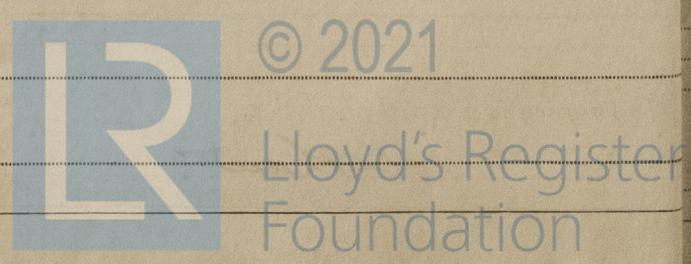
General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been seen fitted on board and tried under full working conditions with satisfactory results. The installation has been carried out in accordance with the Rules, approved plans and the Secretary's letters. The machinery is eligible, in my opinion, to have the records + LMC 4, 54 and TSOG; and notation fitted for oil fuel 4, 54 flash point above 150°F.

The amount of Entry Fee ... £ : : When applied for,
 Special ... £ 28 : - : 4/5/19 54
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ 7 : 7 : 4 : 19

Date THURSDAY 17 JUN 1954

Committee's Minute Deferred.

H. H. Rogers
Engineer Surveyor to Lloyd's Register of Shipping



Certificate to be sent to
 15.6.54

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