

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

15 JUL 1931

Date of writing Report 1931 When handed in at Local Office 11/7/31 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at 1130 Date, First Survey 11 Nov 130 Last Survey 8-4-1931
 Reg. Book. on the New Steel S.S. "San Bolivar" (Number of Visits 67.) Gross 9320
 Built at Wallsend By whom built Swan Hunter Wigham R. Ltd Yard No. 1465 Tons Net 5718
 Engines made at Wallsend By whom made Wallsend Slipways & E.C. Ltd Engine No. 906 When built 1931
 Boilers made at Wallsend By whom made Wallsend Slipways & E.C. Ltd Boiler No. 906 when made 1931
 Registered Horse Power 113. Owners Pan American Petroleum Transport Co. Port belonging to Los Angeles.
 Nom. Horse Power as per Rule 113. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.
 Trade for which Vessel is intended Carrying petroleum in bulk. Ocean going.

ENGINES, &c.—Description of Engines Triple expansion with L. P. Turbine Revs. per minute 42.
 Dia. of Cylinders 24" x 48" x 76" Length of Stroke 51" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 15.356" Crank pin dia. 15.4" Crank webs Mid. length breadth 2.1 1/2" Thickness parallel to axis 10" Thickness around eye-hole 1 1/2"
 Intermediate Shafts, diameter as per Rule 14.625" Thrust shaft, diameter at collars as per Rule 15.356" as fitted 16"
 Tube Shafts, diameter as fitted 18.29" Is the screw shaft fitted with a continuous liner yes.
 Screw Shaft, diameter as per Rule 16.29" as fitted 18.29" Is the screw shaft fitted with a continuous liner yes.
 Bronze Liners, thickness in way of bushes as per Rule 1.798" Thickness between bushes as per Rule 1.598" 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 yes.
 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 yes.
 If two liners are 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 shaft 6'-5" Total Developed Surface 120 sq. feet.
 Propeller, dia. 20'-0" Pitch 14'-6" mean No. of Blades 4 Material bronze whether Movable yes
 Feed Pumps worked from the Main Engines, No. 2 Diameter 10" Stroke 10" Can one be overhauled while the other is at work yes.
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 10" Stroke 10" Can one be overhauled while the other is at work yes.
 Feed Pumps No. and size Two 9" x 12" x 24" How driven Steam Pumps connected to the Main Bilge Line No. and size Two 7" x 6" x 10" duplex, 1 @ 14" x 9 1/2" x 12" duplex How driven
 Ballast Pumps, No. and size 1 @ 14" x 9 1/2" x 12" duplex Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 9" x 8" x 18"
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 3" dia., 1 @ 2" coffee dam, 2 @ 2" dia oil bilge, 1 @ 2" aft coffee dam.
 In Holds, &c. 1 @ 2" coffee dam for 1 @ 4".

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 11" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 5"
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 Are the 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
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks both.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold 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 yes
 What Pipes pass through the bunkers none How are they protected
 What pipes pass through the deep tanks Have they been tested as per Rule yes.
 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 none Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 8640.
 Is Forced Draft fitted yes No. and Description of Boilers Three Single Ended Working Pressure 220 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes.
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes.

PLANS. Are approved plans forwarded herewith for Shafting no 8-1-31. Main Boilers yes Auxiliary Boilers yes Donkey Boilers yes
 Superheaters K.E.M.C. Standard General Pumping Arrangements yes Oil fuel Burning Piping Arrangements yes.

SPARE GEAR. State the articles supplied:—Two each bolts & nuts for top & bottom ends and main bearings, Propeller shaft complete, 9 coupling bolts & nuts, 1 set top & bottom end bushes, 1 set shaft complete, 1 set valve rod, Link block complete. Studs & nuts for cyl & valve chests, Piston & valve rods, Junk rings. Set of piston rings, set of relief valve springs, 50 main & 94 aux condenser tubes. with 1 ferules. Set of feed & bilge pump valves. Spare parts for all independent pumps. Quantity of assorted bolts nuts & iron.

The foregoing is a correct description,
 FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

J. M. Pherson.

Manufacturer.

GENERAL MANAGER



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Lloyd's Register
Foundation

002667-002673-0175

1930

Nov. 11. 17. 27. 28. Dec. 3. 11. 15. 17. 24. Jan. 5. 6. 13. 23. 30. Feb. 2. 4. 6. 10. 13. 16. 17. 20. 24. 27.

1931

Mar. 2. 3. 5. 6. 9. 10. 11. 12. 16. 17. 18. 23. 24. 25. 26. 27. 30. Apr. 1. 8. 9. 10. 12. 14. 15. 16. 20. 29. May 1.

5. 18. 20. 21. 28. 29. June 2. 4. 5. 8. 9. 10. 19. July 1. 8.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - -

Total No. of visits

67.

Dates of Examination of principal parts—Cylinders 1-4-31 Slides 23-3-31 Covers 12-3-31

Pistons 12-3-31 Piston Rods 4-2-31 Connecting rods 13-3-31

Crank shaft 13-2-31 Thrust shaft 25-3-31 Intermediate shafts 29-4-31

Tube shaft ✓ Screw shaft 11-4-31 Propeller 14-4-31

Stern tube 20-4-31 Engine and boiler seatings 18-5-31 Engines holding down bolts 4-6-31

Completion of fitting sea connections 13-4-31

Completion of pumping arrangements 10-6-31 Boilers fixed 4-6-31 Engines tried under steam

Main boiler safety valves adjusted 19-6-31. Thickness of adjusting washers F.B. P $\frac{3}{8}$ " $\frac{3}{8}$ " $\frac{3}{8}$ " P.B. P $\frac{3}{8}$ " $\frac{3}{8}$ " $\frac{3}{8}$ " S.B. P $\frac{3}{8}$ " $\frac{3}{8}$ " $\frac{3}{8}$ "

Crank shaft material O.H. Steel Identification Mark 8916 W.B. Thrust shaft material O.H. Steel Identification Mark 8905 W.B.

Intermediate shafts, material O.H. Steel Identification Marks 8910 E.J.S. Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material O.H. Steel Identification Mark 8911 W.B. + 8915 W.B. spare S.D. Steel Test pressure 740 lbs Date of Test 10-6-31

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 carrying and burning oil fuel been complied with yes

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 built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. It has been efficiently installed & fixed in the vessel & was tried under steam under full working conditions & found to be in good & safe working condition & eligible in our opinion to be classed & have records. ✕ L.M.C. 7-31. "Fitted for oil fuel 7-31 Flash Point over 150°F." Tail shaft C.L. and "Turbine with D.R. Gearing and hydraulic coupling" in the Register Book.

The amount of Entry Fee ... £ 6 : 0 : 0

Special ... £ 110 : 13 : 0

Donkey Boiler Fee ... £ ✓ :

Travelling Expenses (if any) £ ✓ :

When applied for,

14 JUL 1931

When received,

19-8-31

William Butler & E. J. Stoddart
Engineer Surveyor to Lloyd's Register of Shipping.
per W.B.

Committee's Minute

TUE. 21 JUL 1931

Assigned

+ L.M.C. 7.31
Fitted for oil fuel 7.31 F.P. above 150°F
CERTIFICATE WRITTEN. C.L. F.D.



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