

RECEIVED
21 JAN 1943

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 21st Jan., 1943 When handed in at Local Office 21st Jan., 1943 Port of Vancouver, B.C.
 Re-typed 15th Sept., 1943. 1942
 No. in Survey held at Vancouver, B.C. Date, First Survey 13th November Last Survey 6th January, 1943
 Reg. Book. (Number of Visits 18)

on the Steel Single Screw Steamer, "FORT FINLAY" Tons {Gross 7133.95
 Net 4243.92
 Built at Vancouver, B.C. By whom built West Coast Shipbuilders, Limited. Yard No. 112 When built 1943
 Engines made at Toronto, Ontario. By whom made John Inglis & Son Engine No. 133 When made 1942
 Boilers made at Vancouver, B.C. By whom made Vancouver Iron Works, Ltd. Boiler No. 308 When made 1942
311
313
 Registered Horse Power 229 Owners Minister of Munitions & Supply of Canada. Port belonging to ---
 Nom. Horse Power as per Rule 504 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended General Cargo

ENGINES, &c.—Description of Engines Triple expansion, superheat to 575°F Revs. per minute 80
 Dia of Cylinders 24 1/2" x 37" x 70" Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.99" Crank pin dia. 14 1/4" Mid. length breadth --- Thickness parallel to axis 9" & 9 1/2" L.P.
 as fitted 14 1/4" Crank webs shrunk Mid. length thickness --- Thickness around eye-hol (7 1/8" Pin
7 1/8" Journal
 Intermediate Shafts, diameter as per Rule 13.33" Thrust shaft, diameter at collars as per Rule 13.99"
 as fitted 13.5" as fitted 14.25"
 Tube Shafts, diameter as per Rule --- Screw Shaft, diameter as per Rule 14.87"
 as fitted --- as fitted 15.25" Is the tube shaft fitted with a continuous liner Yes
 Bronze Liners, thickness in way of bushes as per Rule .75" Thickness between bushes as per Rule .565"
 as fitted .78125" as fitted .68" 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 solid
 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 tight fit
 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 tube
 shaft No If so, state type --- Length of Bearing in Stern Bush next to and supporting propeller 61"
 Propeller, dia. 18'6" Pitch 16'0" mean No. of Blades 4 Material bronze Whether Moveable solid Total Developed Surface 117 sq. ft.
 Feed Pumps worked from the Main Engines, No. None Diameter --- Stroke --- Can one be overhauled while the other is at work ---
 Bilge Pumps worked from the Main Engines, No. Two Diameter 4 1/2" Stroke 26" Can one be overhauled while the other is at work yes
 Feed {No. and size Two (10"x7"x24") Pumps connected to the {No. and size Four (one) 10"x12"x10" (one) 9"x6"x10" Two Rams
 Pumps {How driven Steam Worthington Simplex Type Main Bilge Line {How driven Duplex steam Duplex Steam M.E.
 Ballast Pumps, No. and size (one) 10"x12"x10" (Duplex) Lubricating Oil Pumps, including Spare Pump, No. and size None
 Are two independent means arranged for circulating water through the Oil Cooler --- Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps: In Engine and Boiler Room 1-3" dia. Port 1-3" Dia. Starbd. in Blr. Rm. 1-3" Dia. Port 1-3" Dia. Starbd.
1-2 1/2" Dia. in Tunnel Well in Engine Room 1-2" Dia. in Thrust Recess
1-2 1/2" Dia. in Pump Room In Holds, &c. 1-4" Dia. to F.P. 1-3" Dia. P.&S. to Nos. 1-2-3-4
& 5 Holds 1-4" Dia to A.P.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 9" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One 5" Dia. Starbd. side 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, main injection fitted to D.B. Tank Are they fitted with Valves or Cocks Valves
 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 below
 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
 What Pipes pass through the bunkers Steel air pipes to No. 4 D.B. tanks How are they protected steel straps welded across frames under
bilge suction. limber boards
 What pipes pass through the deep tanks No. 7 D. B. Air Pipes 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 Yes Is it fitted with a watertight door No worked from ---

MAIN BOILERS, &c.—(Letter for record ---) Total Heating Surface of Boilers 7,140 square feet
 Which Boilers are fitted with Forced Draft all three Which Boilers are fitted with Superheaters all three
 No. and Description of Boilers 3 single ended Multitubular Working Pressure 220 lbs. per sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ---

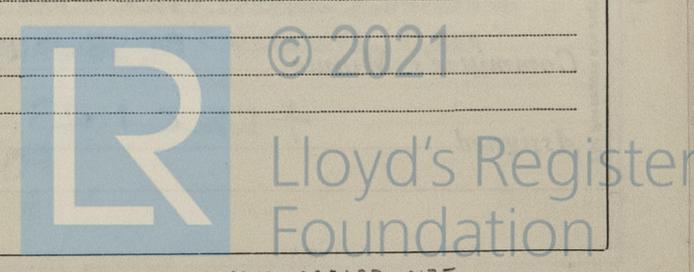
Can the donkey boiler be used for domestic purposes only ---
 PLANS. Are approved plans forwarded herewith for Shafing Approved Plans in U.K. Main Boilers --- Auxiliary Boilers --- Donkey Boilers ---
 (If not state date of approval)
 Superheaters Approved Plans in U.K. General Pumping Arrangements --- Oil fuel Burning Piping Arrangements ---

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied ---

As per list forwarded with Vancouver Report No. 5718, S.S. "FORT ST. JAMES"

The foregoing is a correct description
 WEST COAST SHIPBUILDERS LTD.
W.S.M. Lane
 General Manager

Manufacturer.



During progress of work in shops - - See Toronto Report No. 902

Dates of Survey while building } During erection on board vessel - - - } 1942 Nov.-13,17,25,26 Dec. 2,4,8,9,10,11,19,21,22,28,30.

1943. Jan.- 4,5,6,

Total No. of visits 18

See TORONTO REPORT No. 902

Cylinders Slides Covers

Pistons Piston Rods Connecting rods

Crank shaft Thrust shaft 10th December, 1942 Intermediate shafts 25th November, 1942

Tube shaft Screw shaft 13th November, 1942 Propeller 13th November, 1942

Stern tube 9th November, 1942 Engine and boiler seatings 4th December, 1942 Engines holding down bolts 19th December, 1942

Completion of fitting sea connections 2nd December, 1942

Completion of pumping arrangements 21st Dec. 1942 Boilers fixed 4th Dec. 1942 Engines tried under steam 28th Dec., 1942

Main boiler safety valves adjusted 21st Dec., 1942 Thickness of adjusting washers P.B. 9/16 35/64 S.B. 35/64 39/64

Crank shaft material O.H. Steel Identification Mark Lloyd's 6944 AS 21-5-42 Thrust shaft material O.H. Steel Identification Mark Lloyd's 8296 AS 31-7-42 8297 AS 31-7-42 Lloyd's 8450 AS 20-8-42

Intermediate shafts, material O.H. Steel Identification Mark Lloyd's 7070 AS 12-6-42 5455 PWW 10-5-42 8317 AS 4-8-42 8307 AS 2-7-42

Screw shaft, material O.H. Steel Identification Mark PWW 28-8-42 Steam Pipes, material S.D. Steel Test pressure 660 lbs Date of Test Dec. 11/42

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. ---

Have the requirements of the Rules for the use of oil as fuel been complied with ---

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 Yes If so, state name of vessel S.S. "FORT FRANKLIN" (Vcr. Rpt. NO. 5845)

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this Vessel has been constructed under Special Survey of the Toronto Surveyors and installed on board under Special Survey in accordance with the approved plans, New York letters and otherwise in conformity with the Society's Rules. The materials and workmanship are good and the tests required by the Rules have been satisfactorily carried out. The whole installation has been examined and tested under full working conditions on sea trials and afterwards part opened out, examined and found satisfactory. The machinery has also been surveyed during construction and installation on behalf of Wartime Merchant Shipping, Limited., to ensure that the terms of the specifications have been fully complied with and this work has been satisfactorily carried out.

The machinery of this Vessel is eligible in our opinion to be classed in the Register Book with Notation of *L.M.C. 1,43 crew Shaft C.L. 3 S.E. Blrs. 220 lbs. per sq. inch F.D.

Toronto fees charged in Toronto Report No. 902

The amount of Entry Fee	£	:	When applied for
Special (Vcr)	\$ 133.00	:	7th Jan. 1943
Donkey Boiler Fee	£	:	When received,
Travelling Expenses (if any)	\$ 20.00	:	19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 28 JAN 1944

Assigned + LMC 1.43 FD CL

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

