

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 26 OCT 1944

Date of writing Report **6th Sept., 1944** When handed in at Local Office **6th Sept., 1944** Port of **Vancouver, B. C.**  
 No. in Survey held at **Vancouver, B. C.** Date, First Survey **13th April, 1944** Last Survey **22nd August, 1944**  
 Reg. Book (Number of Visits **37**)

on the **Steel Single Screw Steamer "FORT ALABAMA"** Tons {Gross **7201.75**  
 Net **4006.91**  
 Built at **Vancouver, B. C.** By whom built **Burrard Dry Dock Co. Ltd.** Yard No. **211** When built **1944**  
 Engines made at **Lachine, P. Q.** By whom made **Canadian Allis-Chalmers Ltd.** Engine No. **366** When made **1944**  
 Boilers made at **Vancouver, B. C.** By whom made **Vancouver Iron Works, Ltd.** Boiler No. **690-691** When made **1944**  
 Registered Horse Power **229** Owners **Minister of Munitions & Supply of Canada** Port belonging to **- -**  
 Nom. Horse Power as per Rule **628** Is Refrigerating Machinery fitted for cargo purposes **Yes** Is Electric Light fitted **Yes**  
 Trade for which Vessel is intended **Refrigerated Victualling Ship**

ENGINES, &c.—Description of Engines **Triple Expansion. Superheat to 450°F.** Revs. per minute **76**  
 Dia. of Cylinders **24½" x 37" x 70"** Length of Stroke **48"** No. of Cylinders **3** No. of Cranks **3**  
 Crank shaft, dia. of journals as per Rule **14.21** for 230 lb. Crank pin dia. **14½"** Crank webs Mid. length breadth **- -** Thickness parallel to axis **9" & 9½" L.P.**  
 as fitted **14½"** Mid. length thickness **- -** Thickness around eye-hole **7½" Pin**  
 Intermediate Shafts, diameter as per Rule **13.53** for 230 lb. Thrust shaft, diameter at collars as per Rule **14.21"** **7½" Journal**  
 as fitted **13.5** as fitted **14.25"**  
 Tube Shafts, diameter as per Rule **- -** Screw Shaft, diameter as per Rule **15.07"** Is the **mb** shaft fitted with a continuous liner { **- -**  
 as fitted **- -** as fitted **15.25"** as fitted **14.25"** **Yes**  
 Bronze Liners, thickness in way of bushes as per Rule **.75"** Thickness between bushes as per Rule **.565"** Is the after end of the liner made watertight in the  
 as fitted **.78125** as fitted **.68"** 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 **Continuous**  
 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"** 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 **4½"** Stroke **26"** Can one be overhauled while the other is at work **Yes**  
 Feed {No. and size **Two 12" x 8" x 24"** Pumps connected to the {No. and size **Four (Two) 10" x 11" x 12" Two 4½" Rams**  
 Pumps {How driven **Steam Worthington Simplex** Main Bilge Line {How driven **Duplex - Steam** **M.E.**  
 Ballast Pumps, No. and size **One 10" x 11" x 12" (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 **One 3" P&S, one 3" thrust recess, one 2½" tunnel well, one 3" P&S for'd.**  
 In Pump Room **One 2½" P&S after Cofferdam.** In Holds, &c. **One 3" P&S Nos. 1, 2, 3, 4 & 5 Holds, One 5" P&S Deep Tanks**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **(One) 10"** Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size **(Two) 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 **As approved**  
 Are all Sea Connections fitted direct on the skin of the ship **No; To cast steel stands.** Are they fitted with Valves or Cocks **Yes**  
 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 **Welded**  
 What Pipes pass through the bunkers **None** How are they protected **- -**  
 What pipes pass through the deep tanks **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 **9704 sq. ft.**  
 Which Boilers are fitted with Forced Draft **Both** Which Boilers are fitted with Superheaters **Both**  
 No. and Description of Boilers **Two - Babcock & Wilcox W.T.** Working Pressure **250 lb. (Spt. 230 lb.)**  
 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 Shafting **In U.K.** Main Boilers **17-7-43** Auxiliary Boilers **- -** Donkey Boilers **- -**  
 (If not state date of approval)  
 Superheaters **17-7-43** General Pumping Arrangements **6-7-43** Oil fuel Burning Piping Arrangements **9-7-43**  
**As fitted plan attached.**  
**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. 5942 - S.S. "FORT COLUMBIA"

The foregoing is a correct description  
 Burrard Dry Dock Company, Limited

*W. J. W. W.*  
 President

Manufacturer.



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004486-004488-0005

See Montreal Report No. 6135.

Dates of Survey while building

During progress of work in shops - - -

During erection on board vessel - - -

Total No. of visits 37

1944 April 13, 18, 24 May 2, 4, 5, 8, 9, 11, 12, 15, 16, 17, 19, 23, 25, 27, 29 June 1, 5, 6, 7, 8, 10, 13, 14, 16, 19, 20, 21 August 5, 7, 14, 15, 19, 21, 22

Dates of Examination of principal parts — Cylinders Slides Covers

Pistons Piston Pins Connecting rods

Crank shaft Thrust shaft 15 - 5 - 44 Intermediate shafts 15 - 5 - 44

Tube shaft Screw shaft 24 - 4 - 44 Propeller 24 - 4 - 44

Stern tube 18 - 4 - 44 Engine and boiler seatings 24 - 4 - 44 Engines holding down bolts 27 - 5 - 44

Completion of fitting sea connections 24 - 4 - 44

Completion of pumping arrangements 7-6-44 Boilers fixed 2 - 5 - 44 Engines tried under steam 6 - 6 - 44

Main boiler safety valves adjusted 6 - 6 - 44 Thickness of adjusting washers Lock nuts fitted Lloyd's No. 8809

Crank shaft material O.H. Steel Identification Mark B.H. 16-3-44 Thrust shaft material O.H. Steel Identification Mark B.H. 16-3-44 Lloyd's No. 7886 - E.E.R. 19-11-43 Lloyd's No. 7922 - E.E.R. 30-11-43

Intermediate shafts, material O.H. Steel Identification Marks Lloyd's No. 7860 - E.E.R. 18-11-43 Lloyd's No. 7907 - E.E.R. 26-11-43

Screw shaft, material O.H. Steel Identification Mark No. 4071 Steam Pipes, material S.D. Steel Test pressure 750 lbs. Date of Test 19-5-44 W.S. 10-20-44

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 No

Is this machinery duplicate of a previous case Yes If so, state name of vessel S.S. "FORT COLUMBIA" (Vanc. Report No. 5942)

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



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