

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 29 AUGUST 1942 When handed in at Local Office 29 AUGUST 1942 Port of VANCOUVER, B.C.

No. in Survey held at VICTORIA, B.C. Date, First Survey 9 APRIL Last Survey 13 AUGUST 1942  
Reg. Book. (Number of Visits)

on the STEEL SINGLE SCREW STEAMER, "FORT DOUGLAS" Tons { Gross 7128.82  
Net 4260.89

Built at VICTORIA, B.C. By whom built VICTORIA MACHINERY DEPOT CO. LTD. Yard No. 21 When built 1942

Engines made at TORONTO - ONT. By whom made JOHN INGLIS CO. LTD. Engine No. 75 When made 1942

Boilers made at VANCOUVER, B.C. By whom made VANCOUVER IRON WORKS LTD. Boiler Nos. { 163  
164 When made 1942

Registered Horse Power 229 Owners MINISTER OF MUNITIONS & SUPPLY OF CANADA Port belonging to -

Nom. Horse Power as per Rule 504 505 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 34" 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. 14.25" Crank webs Mid. length breadth 24 1/2" Thickness parallel to axis 7/8" PIN  
 as fitted 14.25" Mid. length thickness 9" H.P. & M.P. shrunk Thickness around eye-hole 7/8" JOURNAL  
 Intermediate Shafts, diameter as per Rule 13.33" Thrust shaft, diameter at collars as fitted 14.25"  
 as fitted 13.5"  
 Tube Shafts, diameter as per Rule - Screw Shaft, diameter as per Rule 14.87" Is the tube shaft fitted with a continuous liner YES  
 as fitted - as fitted 15.25" Is the screw shaft fitted with a continuous liner YES  
 Bronze Liners, thickness in way of bushes as per Rule .75" Thickness between bushes as per Rule .66" 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 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" No. of Blades 4 Material BRONZE whether Movable NO Total Developed Surface 117 sq. feet  
 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 4.47" Stroke 26" Can one be overhauled while the other is at work YES  
 Feed Pumps { No. and size TWO - 10" x 7" x 24" - 4000 IMP. GAL. Pumps connected to the { No. and size FOUR - 1-10" x 12" x 10" - 1-9" x 6" x 10" - 2 - RAMS.  
 How driven STEAM - "WORTHINGTON TYPE" Main Bilge Line { How driven DUPLEX STEAM - DUPLEX STEAM - MAIN ENG.  
 Ballast Pumps, No. and size ONE - 10" x 12" x 10" 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 ENG. RM. 1-3" DIA. PORT & STARBOARD - BLR. RM. 1-3" DIA. PORT & STARBOARD - THRUST RECESS - 1-2" DIA.  
 In Pump Room - In Holds, &c. FOREPEAK - 1.4" DIA. - NOS 1-2-3-4-5 HOLDS - 1-3" DIA. PORT  
& STARBOARD IN EACH HOLD. - 1.4" DIA. IN AFT. PEAK. - 1.2 1/2" DIA. TO TUNNEL WELL.  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE - 9" DIA. Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size ONE - 5" DIA. - STARBOARD 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 STEEL TUBE Are they fitted with Valves or Cocks VALVES & COCKS  
 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 YES  
 What Pipes pass through the bunkers STEEL AIR PIPES TO NO 4 D.B. TANK. FORWARD. BILGE SUCTIONS. How are they protected STEEL STRAPS WELDED ACROSS FRAMES UNDER LUMBER BOARDS.  
 What pipes pass through the deep tanks NO 7 D.B. TANK 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 S) Total Heating Surface of Boilers 7140 SQ. FT. ✓  
 Is Forced Draft fitted YES No. and Description of Boilers 3 - SINGLE END MULTITUBULAR FITTED WITH SUPERHEATERS 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? -  
 Is the donkey boiler intended to be used for domestic purposes only -  
**PLANS.** Are approved plans forwarded herewith for Shafting APPROVED PLANS IN UNITED KINGDOM. Main Boilers - Auxiliary Boilers - Donkey Boilers -  
 (If not state date of approval)  
 Superheaters - General Pumping Arrangements - Oil fuel Burning Piping Arrangements -

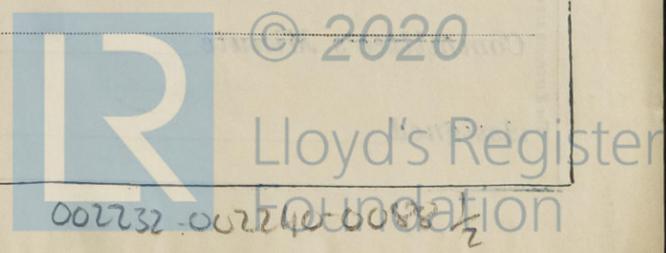
### SPARE GEAR.

Has the spare gear required by the Rules been supplied YES  
State the principal additional spare gear supplied.  
AS PER LIST FORWARDED WITH VCR. RPT. NO 5718 - "S.S. FORT ST. JAMES"

The foregoing is a correct description,  
Victoria Machinery Depot Co., Ltd.

*J. Couper*

Manufacturer.



NOTE.—The records which do not apply should be deleted.

NOW.

YES.

In a Report also sent on the Hull of the Ship?

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During progress of work in shops -- SEE TORONTO, ONT. RPT. NO. 835  
 Dates of Survey while building  
 During erection on board vessel -- 1942. April 9-13-16-17-20-21-22-29-30. May 1-23-29. JUNE 3-4-5-6-10-12-18-22-23.  
 July 2-6-10-12-14-18-18-17-21-22-24-25-28-31. August 1-2-3-4-5-6-7-8-10-11-12-13.  
 Total No. of visits 47

Dates of Examination of principal parts—Cylinders Slides Covers  
 Pistons Piston Rods RPT. NO. 835 Connecting rods  
 Crank shaft SEE TORONTO, ONT. RPT. NO. 835 Thrust shaft 12-9-41 - 7-2-42. Intermediate shafts 23-1-42 + 16-1-42.  
 Tube shaft Screw shaft 20-12-41 - 20-4-42. Propeller 24-4-42 - 21-7-42.  
 Stern tube 25-3-42 = 16-4-42. Engine and boiler seatings 6-3-42 - 12-6-42. Engines holding down bolts 2-7-42.  
 Completion of fitting sea connections 29-4-42  
 Completion of pumping arrangements 28-7-42. Boilers fixed 12-6-42. Engines tried under steam 25-7-42 = 8-8-42.  
 Main boiler safety valves adjusted 24-7-42. Thickness of adjusting washers P.B. 3442 - J.S. 2-8-41 - 3968 - J.S. 10-10-41. (R.V. 475) (R.V. 600) (R.V. 625)  
 Crank shaft material O.H. STEEL. Identification Mark J.B. 7-2-42. Thrust shaft material O.H. STEEL. Identification Mark O.N. 12-9-41. (Loyos 3942 - J.S. 2-8-41 - 3968 - J.S. 10-10-41) (Loyos 6441)  
 Intermediate shafts, material O.H. STEEL. Identification Marks 5065-23-1-42 T.M. 5054-16-1-42 T.M. 5035-16-1-42 T.M. 5.B. 7-2-42  
 Screw shaft, material O.H. STEEL. Identification Mark 4040-20-12-41 T.M. Steam Pipes, material S.D. STEEL. Test pressure 600 LBS. Date of Test 3-6-42.  
 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 CAMOSUN" - V.R. Rpt. No. 5769

General Remarks (State quality of workmanship, opinions as to class, etc.) The Machinery of this vessel has been constructed under special survey of the Toronto, Ont. 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 opened out, examined and found satisfactory. The Machinery has also been surveyed during construction and installation on behalf of Wartime Merchant Shipping Ltd., 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 + L.M.C. 8-42 - SCREW SHAFT. C.L. 3-S.E. BOILERS 220 LBS. PER SQ. INCH. F.D.

Please refer to Continuation sheet for particulars of damage sustained at time of launching.

The amount of Entry Fee ... £ : : When applied for,  
 Special ... £ \$133.00 : : 10th Aug. 1942  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ \$ 60.00 : :  
 When received, 19

Committee's Minute TUE 10 NOV 1942  
 Assigned J.D., Cd.,

S.S. "FORT DOUGLAS" (DAMAGE)

This Vessel was successfully launched at 3:15 A.M., 30th April, 1942, and about 3:45 A.M., the same day, grounded on the Victoria Harbour Breakwater, damaging propeller.

NOW DONE:-  
 Vessel placed on drydock.  
 PROPELLER (Bronze 4 Blades)

1 Blade bent forward at tip and small piece broken out at tip.  
 New Bronze propeller now fitted.

SCREW SHAFT  
 Drawn, placed in lathe, tested for truth and found good. Shaft refitted.

STERN TUBE, stern bush and fastenings specially examined and found satisfactory.

Please refer to copy of Damage Report attached to Hull First Entry Report.

S.D. Boomer per RR.

