

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 When handed in at Local Office 12. 4. 1930 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 7. 3. 29 Last Survey 9. 4. 1930
 Reg. Book. 41817 on the Swin S.I. "Princess Joan" (Number of Visits 110)
 Built at Glasgow By whom built Fairfield Shipbuilding & Eng. Co. Ltd. Yard No. 639 Tons Gross 5251 Net 3023
 Engines made at do By whom made do. Engine No. 639 When built 1930
 Boilers made at do By whom made do. Boiler No. 639 when made 1930
 Registered Horse Power 622 Owners Canadian Pacific Railway. Port belonging to Victoria B.C.
 Nom. Horse Power as per Rule 622 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes
 Trade for which Vessel is intended Coasting

ENGINES, &c.—Description of Engines Quadruple Expansion Revs. per minute 155
 Dia. of Cylinders 16, 23, 33 & 48 Length of Stroke 33 No. of Cylinders 4 No. of Cranks 4
 Crank shaft, dia. of journals as per Rule 9.76 Crank pin dia. 10.5 Crank webs Mid. length breadth 15 Thickness parallel to axis 6 1/2
 as fitted 9 1/2 Mid. length thickness 6 1/4 shrunk Thickness around eye-hole 4 7/8
 Intermediate Shafts, diameter as per Rule 9.29 Thrust shaft, diameter at collars as per Rule 9.46 as fitted 9 7/8
 as fitted 9 3/8 Is the tube screw shaft fitted with a continuous liner Yes
 Tube Shafts, diameter as per Rule 9.46 as fitted 9 1/2 Screw Shaft, diameter as per Rule 10.58 as fitted 10 3/4
 as fitted 9 1/2 Is the after end of the liner made watertight in the propeller boss Yes
 as per Rule 9.62 Thickness between bushes as per Rule 4.6 as fitted 4 1/2
 as fitted 9 1/2 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 No.
 Length of Bearing in Stern Bush next to and supporting propeller 4' 6"
 Propeller, dia. 10' 6" Pitch 12' 9" No. of Blades 4 Material Brass whether Moveable Yes Total Developed Surface 37 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 12 Stroke 12 Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 12 Stroke 12 Can one be overhauled while the other is at work Yes
 Feed Pumps No. and size 2 @ 12 x 9 x 24, 1 @ 8 1/2 x 6 x 18 Pumps connected to the Main Bilge Line No. and size Bilge Ballast @ 6 x 7 x 7 (70 lins) 1 @ 4. Series @ 6 x 7 x 7 (70 lins)
 How driven Steam How driven Steam
 Ballast Pumps, No. and size 2 @ 6 x 7 x 7 Lubricating Oil Pumps, including Spare Pump, No. and size 1
 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 Eng. Room 3 @ 2 1/2, Bilge Room 3 @ 2 1/2, Bilge 1 @ 2 1/2, Sumps 1 @ 3
 In Holds, &c. No. hold 1 @ 3, No. 2 hold 2 @ 3, Bilge 1 @ 2 1/2

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 @ 8 **Independent Power Pump Direct Suctions to the Engine Room Bilges,**
 No. and size 1 @ 4 1/4 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 stowhold 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 None How are they protected None
 What pipes pass through the deep tanks None 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 Yes worked from Eng. Room + Upper Deck

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 10152 sq
 Is Forced Draft fitted Yes No. and Description of Boilers 4 Single ended Working Pressure 150 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 17.1.29 Main Boilers 14.1.29 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 Superheaters Yes General Pumping Arrangements 20.6.29 Oil fuel Burning Piping Arrangements 5.4.29
 SPARE GEAR. State the articles supplied:—

In accordance with Rules and additions

The foregoing is a correct description,
For THE FAIRFIELD SHIPBUILDING AND ENGINEERING CO., LTD.

B.R. Straehle
MANAGER



010846-010857-0040

1929 Mar 7, 10, 14, 27 Apr 8, 11, 17, 22, 24, 29, 30 May 6, 10, 14, 23, 27, 30, 31 June 3, 4, 6, 11, 12, 19
 During progress of work in shops -- 20, 28 July 5, 10, 23, 29, 30 Aug 1, 9, 13, 16, 19, 20, 21, 26, 28, 30 Sep 3, 4, 6, 9, 10, 16, 20, 26 Oct 8, 11
 Dates of Survey while building
 During erection on board vessel --- 15, 16, 21, 23, 24, 25, 29, 30, 31 Nov. 4, 6, 7, 8, 11, 13, 14, 15, 19, 20, 22, 25, 26, 27, 29 Dec 2, 3, 6, 9, 11
 Total No. of visits 110 25, 31 Apr 2, 4, 9

Dates of Examination of principal parts—Cylinders 15.10.29 Slides 14.6.29 Covers 19.6.29
 Pistons 14.6.29 Piston Rods 19.6.29 Connecting rods 19.6.29
 Crank shaft 26.9.29 Thrust shaft 13.8.29 Intermediate shafts 13.1.30
 Tube shaft 15.11.29 Screw shaft 21.10.29 Propeller 14.11.29
 Stern tube 17.1.30 Engine and boiler seatings 4.2.30 Engines holding down bolts 31.2.30
 Completion of fitting sea connections 4.2.30
 Completion of pumping arrangements 31.3.30 Boilers fixed 31.2.30 Engines tried under steam 4.4.30
 Main boiler safety valves adjusted 31.3.30 Thickness of adjusting washers F.P. F^{1/2} A^{1/4} F.S.P. A^{1/2} A^{3/4} A.T. A^{1/2} A.S. F^{1/4} A^{3/2}
 Crank shaft material S.M. Light steel Identification Mark 639-26-9-29 RR Thrust shaft material S.M. Light steel Identification Mark 445+455 RR
 Intermediate shafts, material do Identification Marks 917, 125, 135, 265 Tube shaft, material do Identification Mark 42R, 45R, RR.
 Screw shaft, material do Identification Mark 325, 405 RR Steam Pipes, material steel Test pressure 150. Date of Test 25.3.30.
 Is an installation fitted for burning oil fuel y/n Is the flash point of the oil to be used over 150°F. y/n
 Have the requirements of the Rules for the use of oil as fuel been complied with y/n
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo y/n If so, have the requirements of the Rules been complied with y/n
 Is this machinery duplicate of a previous case y/n If so, state name of vessel Princess Elizabeth

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The machinery of this vessel has been built under special survey and in accordance with the Rules. The materials and workmanship are good. It has been placed in forward and efficiently secured in position and on completion has been examined under full working conditions and found in order.
 The machinery of this vessel is eligible in our opinion, to be classed in the Register Book with notation of + L.M.C. 4.30. and record of fitted for oil fuel 4.30 F.P. above 150°F.

A.B.
 12/4/30

It is submitted that
 THE RECORD: Filled 4.20. F.P. CL.
 Filled for oil fuel 4.30
 F.P. above 150°F.

J. H. 23/4/30

The amount of Entry Fee ... £ 6 : -
 Special ... £ 106 : 2
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :

When applied for, 14 APL 1930
 When received, 24.5.30

Geo. Brown for Self + Robert Rae.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 APR 1930

Assigned + L.M.C. 4.30. FD.
 Fitted for oil fuel 4.30 F.P. above 150°F.

