

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.L. "Primrose Jean"* (Number of Visits 110)
 Built at *Glasgow* By whom built *Fairfield Shipbuilding & Eng. Co. Ltd.* Yard No. *639* Tons Gross *5251*
 Engines made at *do* By whom made *do.* Engine No. *639* Net *3023*
 Boilers made at *do* By whom made *do.* Boiler No. *639* When built *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 *105*
 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 9.46* Crank pin dia. *10.58* Crank webs *15* Mid. length breadth *64* Thickness parallel to axis *64*
 Intermediate Shafts, diameter *as fitted 9.29* Thrust shaft, diameter at collars *as per Rule 9.46* as fitted *9.46* Thickness around eye-hole *47.6*
 Tube Shafts, diameter *as per Rule 9.46* as fitted *9.46* Is the tube screw shaft fitted with a continuous liner *Yes*
 Screw Shaft, diameter *as per Rule 10.58* as fitted *10.58* Is the after end of the liner made watertight in the
 Bronze Liners, thickness in way of bushes *as per Rule 9.46* as fitted *9.46* Thickness between bushes *as per Rule 9.46* as fitted *9.46*
 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. *1* Diameter *10* Stroke *10* Can one be overhauled while the other is at work *Yes*
 Bilge Pumps worked from the Main Engines, No. *1* Diameter *10* Stroke *10* Can one be overhauled while the other is at work *Yes*
 Feed Pumps { No. and size *2 2 12 x 9 x 24, 10 8 1/2 x 6 x 18* Pumps connected to the { No. and size *Bilge Ballast 2 6 x 7 x 7 (70 lins) 1 9 1/2 x 6 x 7 x 7 (70 lins)*
 How driven *Steam* Main Bilge Line { How driven *Steam*
 Ballast Pumps, No. and size *2 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 x 6 x 7 x 7 Bilge Room 3 2 1/2 x 6 x 7 x 7* *Summed 103*
 In Holds, &c. *No. 1 hold 103 No. 2 hold 203 6 1/2 x 10 3 1/2*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *2 2 8* Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size *1 10 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 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 *None* How are they protected *Yes*
 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 *S*) Total Heating Surface of Boilers *10152 8*
 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. Strachan
MANAGER

Manufacturer.

010846-010857-0040

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Lloyd's Register
Foundation

1929 Mar 7. 18. 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
13. 16. 19. 24. 30 (1930) Jan 7. 9. 10. 13. 16. 17. 23. 24 Feb. 4. 11. 13. 25 Mar 4. 11. 12. 14. 17. 19. 20. 24
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. F¹/₁₆ A¹/₄ F.S.P. F¹/₁₆ A¹/₄ A.T. A¹/₁₆ A.S. F¹/₁₆ A¹/₄ A¹/₁₆
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 42 R. 95 R. RR.
Screw shaft, material do. Identification Mark 325. 406 RR Steam Pipes, material steel Test pressure 150. Date of Test 25. 3. 30.
Is an installation fitted for burning oil fuel y/s. Is the flash point of the oil to be used over 150°F. y/s
Have the requirements of the Rules for the use of oil as fuel been complied with y/s
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo y/s If so, have the requirements of the Rules been complied with y/s
Is this machinery duplicate of a previous case y/s 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.

It is submitted that
this vessel is eligible for
THE RECORD: + L.M.C. 4. 30. F.P. CL.
Fitted 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 Survey + Robert Rae.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 APR 1930
Assigned + L.M.C. 4. 30. F.P.
Fitted for oil fuel 4. 30 F.P. above 150°F.