

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

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Date of writing Report 15/7/1940 When handled in at Local Office 15/7/1940 Port of WEST HARTLEPOOL
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 20th July, 1939 Last Survey 6th July 1940
 Reg. Book. on the S.S. "CAPE BRETON" (Number of Visits 100)
 Built at West Hartlepool By whom built Wm. Gray & Co. Ltd Yard No. 1101 When built 1940
 Engines made at West Hartlepool By whom made Central Marine Eng. Works No. 1101 When made 1940
 Boilers made at West Hartlepool By whom made Central Marine Eng. Works Boiler No. 1101 When made 1940
 Registered Horse Power _____ Owners Bowring Steamship Co. Ltd Port belonging to London
 Nom. Horse Power as per Rule 462 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended Ocean-going

ENGINES, &c.—Description of Engines Inverted triple expansion Revs. per minute 70
 Dia. of Cylinders 24 x 38 x 68 Length of Stroke 48 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13.89 Crank pin dia. 14 1/4 Crank webs Mid. length breadth 20 1/2 Thickness parallel to axis 8 1/2
as fitted 14 1/4 Mid. length thickness 8 3/4 Thickness around eye-hole 6 1/8
 Intermediate Shafts, diameter as per Rule 13.23 Thrust shaft, diameter at collars as per Rule 13.89
as fitted 13 1/2 as fitted 14 1/4
 Tube Shafts, diameter as per Rule 14.77 Is the { tube } shaft fitted with a continuous liner { Yes }
as fitted as fitted 15 1/4 { screw }
 Bronze Liners, thickness in way of bushes as per Rule 7.5 Thickness between bushes as per Rule 5.63
as fitted 2 1/2 as fitted 5 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 lightly 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 If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller 5' 0 1/2"
 Propeller, dia. 18' 6" Pitch 16' 6" No. of Blades 4 Material Bronze whether Moveable Yes Total Developed Surface 106 sq. feet
 Feed Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work _____
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 28" Can one be overhauled while the other is at work Yes
 Feed Pumps { No. and size 3 Single 9 1/2 x 7 x 21 Pumps connected to the { No. and size 1 @ 9 x 10 1/2 x 10 1 @ 7 x 8 x 8 }
 { How driven Independent Steam Main Bilge Line { How driven Independent Steam }
 Ballast Pumps, No. and size 1 @ 9 x 10 1/2 x 10 Lubricating Oil Pumps, including Spare Pump, No. and size _____
 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 5 @ 3" dia.
 In Pump Room _____ In Holds, &c. N°1 1 @ 3" N°2 3 @ 3" N°3 2 @ 3"
N°4 2 @ 3" N°5 2 @ 3" Sunnel well 1 @ 2 1/2" Sunnel drain 1 @ 2"
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 @ 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 Yes
 Are all Sea Connections fitted direct on the skin of the ship On reservoir 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 MAIN BELOW REST ABOVE
 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 _____
 What pipes pass through the deep tanks None Have they been tested as per Rule _____
 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 upper deck.

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 6375 sq
 Which Boilers are fitted with Forced Draft cell Which Boilers are fitted with Superheaters cell
 No. and Description of Boilers 3 Single ended cylindrical Working Pressure 225 lbs
 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 Yes Main Boilers Yes Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval)
 Superheaters Yes 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 1 Propeller shaft

The foregoing is a correct description
 FOR THE CENTRAL MARINE ENGINE WORKS

[Signature]
 ASSISTANT GENERAL MANAGER

Manufacturer.



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Lloyd's Register
 Foundation

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1939. July 20. Nov. 13. 16. 22. 27. 28. 29. 30. Dec. 7. 14. 19. 28. 29. 1940. Jan. 4. 5. 8. 9. 11. 15. 17. 19. 22. 24. 30.

Dates of Survey while building
 During progress of work in shops - -
 Feb. 2. 7. 8. 9. 12. 13. 14. 15. 16. 17. 20. 21. 23. 26. 27. 28. 29. March 5. 5. 6. 7. 8. 11. 12. 13. 18. 19. 20. 21. 27. 28. 29. April 1. 3. 4. 6. 8. 9. 10. 16. 18. 19. 24. 26. 29. May 1. 2. 6. 7. 8. 10. 13. 15. 21. 22. 27. 28. June 3.
 1940. April 3. 18. 16. 23. May 7. 13. 15. 17. 21. 22. 27. 28. June 3. 6. 19. July 1. 5. 6.
 Total No. of visits 100

Dates of Examination of principal parts - Cylinders 28/11/39 - 4/3/40 Slides 7/2/40 Covers 7/2/40
 Pistons 2/2/40 - 5/5/40 Piston Rods 2. 7. 13/2/40 Connecting rods 2. 7. 13. 14/2/40
 Crank shaft 22/1/40 - 18/3/40 Thrust shaft 15/1/40 - 18/3/40 Intermediate shafts 28/2/40 - 2/5/40
 Tube shaft ✓ Screw shaft 19/1/40 - 2/5/40 Propeller 13/5/40
 Stern tube 2/5/40 Engine and boiler seatings 7/5/40 Engines holding down bolts 27/5/40
 Completion of fitting sea connections 7/5/40
 Completion of pumping arrangements 6/7/40 Boilers fixed 27/5/40 Engines tried under steam 6/7/40
 Main boiler safety valves adjusted 5/7/40 Thickness of adjusting washers 1 1/2" SUP 3/16" P 3/8" 1 1/2" SUP 7/32" P 3/8" 1 1/2" SUP 3/8" P 3/8"
 Crank shaft material IMHOT STEEL Identification Mark N° 2035 REG. Thrust shaft material IMHOT STEEL Identification Mark N° 2049 REG.
 Intermediate shafts, material IMHOT STEEL Identification Mark N° 2052, 34, 56, 798, REQ. Tube shaft, material - Identification Mark -
 Screw shaft, material IMHOT STEEL Identification Mark N° 2050 REG. Steam Pipes, material STEEL Test pressure 675 lbs. Date of Test 8-5-40
 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 No
 Is this machinery duplicate of a previous case No If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, &c. See engines and boilers of this vessel have been constructed under special survey and in accordance with the approved plans. The workmanship and materials have been found good. Upon completion they were examined under full working conditions and found satisfactory. It is recommended that the machinery of this vessel be classed in the Register Books. :-
 * I.M.C. 7.40. 3SB (S/C) F.D. C.L.

The amount of Entry Fee ... £ 5 : 0 :
 Special ... £ 94 : 6 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 19
 When received, 13th Aug 1940 R.D. 14/5

Arthur W. Oxford & John W. Dunhill
 Engineer Surveyors, Lloyd's Register of Shipping.

Committee's Minute TUE 23 JUL 1940
 Assigned + Lumb 7.40
 J.D. C.L.



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