

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

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Date of writing Report 19 13. 10. 1941 When handed in at Local Office Glasgow Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 12. 10. 1940 Last Survey 3. 10. 1941
 Reg. Book. 36311 on the H.S. "Empire Baffin" (Number of Visits 41) Tons { Gross 6978 Net 5086
 Built at Port Glasgow By whom built Lithgow Fed. Yard No. 958 When built
 Engines made at Glasgow By whom made D. Rowan & Co Fed Engine No. 1081 When made 1941
 Boilers made at do By whom made do Boiler No. 1078 When made 1941
 Registered Horse Power _____ Owners Ministry of War Transport Port belonging to _____
 Nom. Horse Power as per Rule 439 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted Ys.
 Trade for which Vessel is intended _____

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute _____
 Dia. of Cylinders 23 1/2, 34 1/2, 68" Length of Stroke 48" No. of Cylinders 3 1/2 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 13 1/4 as fitted 13 1/4 Crank pin dia. 13 3/4 Crank webs Mid. length breadth 26 3/4 Thickness parallel to axis 8 1/4
 as fitted 13 1/4 Crank pin dia. 13 3/4 Crank webs Mid. length thickness 8 1/4 shrunk Thickness around eye-hole 6 1/2
 Intermediate Shafts, diameter as per Rule 12.985 as fitted 13.0 Thrust shaft, diameter at collars as per Rule 13.634 as fitted 13 1/2
 Tube Shafts, diameter as per Rule _____ as fitted _____ Screw Shaft, diameter as per Rule 14.465 as fitted 14 1/2 Is the hub shaft fitted with a continuous liner Ys.
 Bronze Liners, thickness in way of bushes as per Rule 1/4 as fitted 3/4 Thickness between bushes as per Rule 5/8 as fitted 1/16 Is the after end of the liner made watertight in the propeller boss Ys.
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Ys.
 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 Ys.
 If two liners are fitted, is the shaft lapped or protected between the liners Ys. Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Ys.
 Propeller, dia. 18-3" Pitch 17-3" No. of Blades 4 Material CI. whether Moveable No. Length of Bearing in Stern Bush next to and supporting propeller 4-11" Total Developed Surface 108.5 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. 2 Diameter 4" Stroke 2 1/2" Can one be overhauled while the other is at work Ys.
 Feed Pumps { No. and size 2 @ 9 1/2" x 7 x 21" How driven Steam Pumps connected to the Main Bilge Line { No. and size 1 @ 200 tons/hr How driven Steam
 Ballast Pumps, No. and size 1 @ 200 tons/hr 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 3 @ 3", 1 @ 2 1/2" in Poffadgen In Hold, &c. No. 1. 2 @ 3", No. 2. 2 @ 3 1/2", Cross hub at 2 @ 2 1/2"
 In Pump Room _____
 Nos. 2 @ 3", No. 4. 2 @ 3" Sited at Greenock

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 Ys.
 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 Ys.
 Are all Sea Connections fitted direct on the skin of the ship Ys. Are they fitted with Valves or Cocks Part.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Ys. 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 Ys. Are the Blow Off Cocks fitted with a spigot and brass covering plate Ys.
 What Pipes pass through the bunkers _____ How are they protected _____
 What pipes pass through the deep tanks _____ 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 Ys.
 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 Ys. Is the Shaft Tunnel watertight See hull report Is it fitted with a watertight door No. worked from _____

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 5920 sq ft
 Is Forced Draft fitted Ys. No. and Description of Boilers 2 Single ended Working Pressure 220 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Ys. (British Inspection)
 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 14.10.40 Main Boilers 2.10.40 Auxiliary Boilers _____ Donkey Boilers _____
 Superheaters _____ General Pumping Arrangements _____ Oil fuel Burning Piping Arrangements _____

SPARE GEAR.
 Has the spare gear required by the Rules been supplied Ys.
 State the principal additional spare gear supplied See List attached. (Will be forwarded later)

The foregoing is a correct description.

For David Rowan & Co Ltd.
Archd. W. Grierson

Manufacturer.



1940 Dec: 4. 26. 27 (1941) Jan: 23. 31 Feb: 11 Mar: 6. 24. 26 Apr: 3. 17. 23 May 8. 19. 29 June:
 During progress of work in shops -- 2. 13. 17. 24. 25 July 1. 4. 7. 8. 10. 16. 29 Aug: 4. 6. 7. 20. 22 Sep: 6. 15. 16. 17. 19. 23. 30 Oct: 2. 3
 and
 During erection on board vessel ---
 Total No. of visits 41

Dates of Examination of principal parts—Cylinders 7.7.41 Slides 25.6.41 Covers 7.7.41
 Pistons 1.7.41 Piston Rods 1.7.41 Connecting rods 10.7.41
 Crank shaft 8.7.41 Thrust shaft 7.8.41 Intermediate shafts 4.8.41
 Tube shaft — Screw shaft 7.8.41 Propeller 7.8.41
 Stern tube 29.7.41 Engine and boiler seatings 22/8/41 Engines holding down bolts 15.9.41
 Completion of fitting sea connections 22/8/41 M. Caldwell (Quinnock)
 Completion of pumping arrangements 23.9.41 Boilers fixed 23.9.41 Engines tried under steam 3/10/41
 Main boiler safety valves adjusted 23.9.41 Thickness of adjusting washers Port A: P 5 3/8" Dia: 4" P 5 3/8"
 Crank shaft material *Ph. High steel* Identification Mark 8.7.41 - J.N. Thrust shaft material *Ph. High steel* Identification Mark F11824 - HAZ
 Intermediate shafts, material *do* Identification Marks 11826-11831 Tube shaft, material — Identification Mark 30.5.41 - G.E.N.
 Screw shaft, material *do* Identification Mark F11824 - HAZ Steam Pipes, material *L.W. Steel* Test pressure 660 lb Date of Test 30.9.41
 Is an installation fitted for burning oil fuel *do* 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 ✓ 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 ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The engines of this vessel have been built under special survey and the
 holes have been made under the survey of the British Corporation under Permit No. 1098.
 The materials and workmanship as regards the engines are good.
 The machinery has been efficiently secured in position and on
 completion it has been tried under working conditions with satisfactory results.
 The conditions of the specification have been carried out.
 The machinery of this vessel is eligible, in our opinion, to be classed
 in the Regular Book with Record of LMC * 10.41

GLASGOW

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

The amount of Entry Fee ...	£ 5 : - :	When applied for,
Special <i>3/5</i> ...	£ 54 : 10 :	14 OCT 1941
Donkey Boiler <i>free</i> ...	£ 13 : 12 :	When received,
Travelling Expenses (if any) £	: : :	19.

J. Brown for A.J. Brown & J.H. Nain
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 14 OCT 1941**

Assigned *Amc * 10.41*

The
 Lloyd's
 High
 Wilts
 Woking
 BERKS.

