

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report

When handed in at Local Office

26:12: 1941 Port of

No. in Survey held at
Reg. Book.

Date, First Survey 27:12:40

Last Survey 22:12:

1941

36364 on the

Glasgow
S.S. "Empire Bain"

(Number of Visits 49)

Tons { Gross 813
Net 333

Built at Glasgow

By whom built Blythwood S.B. Co. Ltd.

Yard No. 67

When built

Engines made at do.

By whom made D. Rowan & Co. Ltd.

Engine No. 1080

When made 1941

Boilers made at do.

By whom made do

Boiler No. 1080

When made 1941

Registered Horse Power

Owners Ministry of War Transport

Port belonging to Glasgow

Nom. Horse Power as per Rule 139.

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted y/s.

Tonnage for which Vessel is intended

ENGINES, &c.—Description of Engines

Simple Expansion

Revs. per minute

Dia. of Cylinders 16" 28" 41" Length of Stroke 30"

No. of Cylinders 3

No. of Cranks 3

Crank shaft, dia. of journals as per Rule 8.165"

Crank pin dia. 8 1/2"

Crank webs

Mid. length breadth 16 1/2"

Thickness parallel to axis 8 3/8"

Intermediate Shafts, diameter as per Rule 4.77"

as fitted 8 5/8"

Thrust shaft, diameter at collars as per Rule 8.165"

as fitted 8 1/2"

Tube Shafts, diameter as per Rule

Screw Shaft, diameter as per Rule 8.67"

as fitted 8 1/8"

Is the tube screw shaft fitted with a continuous liner y/s.

Bronze Liners, thickness in way of bushes as per Rule 5.56"

as fitted 9 1/16"

Thickness between bushes as per Rule 4.17"

as fitted 1 1/2"

Is the after end of the liner made watertight in the

propeller boss y/s. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner y/s.

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 y/s.

If two liners are fitted, is the shaft lapped or protected between the liners y/s.

Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft y/s. If so, state type

Length of Bearing in Stern Bush next to and supporting propeller 36"

Propeller, dia. 10'-9" Pitch 11'-3" No. of Blades 4

Material B.I.

whether Moveable No.

Total Developed Surface 41 sq. feet

Feed Pumps worked from the Main Engines, No. 2

Diameter 3 3/4"

Stroke 15"

Can one be overhauled while the other is at work y/s.

Bilge Pumps worked from the Main Engines, No. 2

Diameter 3 3/4"

Stroke 15"

Can one be overhauled while the other is at work y/s.

Feed Pumps { No. and size 2 @ 7' x 5' x 12"

Pumps { How driven Steam

Pumps connected to the Main Bilge Line

{ No. and size 1 @ 6 1/2' x 7' x 15"

How driven Steam

Ballast Pumps, No. and size 2 @ 6 1/2' x 7' x 15"

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 @ 2 1/2' x 10"

In Pump Room 1 @ 3"

In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4"

No. and size 2 @ 3"

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes y/s.

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 y/s.

Are all Sea Connections fitted direct on the skin of the ship y/s.

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 y/s.

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 y/s.

Are the Blow Off Cocks fitted with a spigot and brass covering plate y/s.

What Pipes pass through the bunkers y/s.

How are they protected y/s.

What pipes pass through the deep tanks y/s.

Have they been tested as per Rule y/s.

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times y/s.

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 y/s.

Is the Shaft Tunnel watertight y/s.

Is it fitted with a watertight door y/s.

worked from y/s.

MAIN BOILERS, &c.—(Letter for record S)

Total Heating Surface of Boilers 2100 sq.

Which Boilers are fitted with Forced Draft Main

Which Boilers are fitted with Superheaters y/s.

No. and Description of Boilers 1 Simple End

Working Pressure 190 lbs.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? y/s.

Can the donkey boiler be used for domestic purposes only y/s.

PLANS. Are approved plans forwarded herewith for Shafting y/s.

Main Boilers y/s.

Auxiliary Boilers -

Donkey Boilers -

(If not state date of approval)

Superheaters -

General Pumping Arrangements 28.3.41

Oil fuel Burning Piping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied y/s.

State the principal additional spare gear supplied

See List Attached.

The foregoing is a correct description.

For David Rowan & Co. Ltd.

Archd. H. Grierson

Manufacturer.



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Lloyd's Register
Foundation

1940 Dec: 27 (1941) Jan: 23 Apr: 3 16 17 23 24 28 May: 14 19 22 29 June: 2 6 10 13 17 19 24
 During progress of work in shops - - 25 July 1 4 10 14 16 29 Aug: 22 28 29 Sep: 9 15 16 Oct: 1 3 7 20 21 Nov: 3 5 6 10 15 26 27
 Dates of Survey while building - - -
 During erection on board vessel - - -
 Total No. of visits 149

Dates of Examination of principal parts—Cylinders 2.6.41 Slides 25.6.41 Covers 2.6.41
 Pistons 19.6.41 Piston Rods 19.6.41 Connecting rods 19.6.41
 Crank shaft 6.6.41 Thrust shaft 14.7.41 Intermediate shafts -
 Tube shaft - Screw shaft 29.7.41 Propeller 29.7.41
 Stern tube 1.10.41 Engine and boiler seatings 7.10.41 Engines holding down bolts 6.11.41
 Completion of fitting sea connections 7.10.41
 Completion of pumping arrangements 27.11.41 Boilers fixed 27.11.41 Engines tried under steam 22.12.41.
 Main boiler safety valves adjusted 27.11.41 Thickness of adjusting washers 208 $\frac{3}{8}$
 Crank shaft material 10414-11638 Identification Mark AJSB-6.6.41 Thrust shaft material 10414-11638 Identification Mark J.H.N. 14.7.41
 Intermediate shafts, material - Identification Marks - Tube shaft, material - Identification Mark -
 Screw shaft, material 10414-11638 Identification Mark AJSB-27.7.41 (Steam Pipes, material S.D. Steel Test pressure 540 lb. Date of Test 3.11.41.
 Is an installation fitted for burning oil fuel ☒ 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.)
 This machinery has been built under special survey & in accordance with the Rules. The materials & workmanship are good. It has been placed in position & efficiently secured in position and afterwards tried under working conditions with satisfactory results. The conditions of the Specification have been carried out. The machinery of this vessel is capable, in our opinion, to be entered in the Register Book with regard to L.M.C. 12.41. Fitted for oil fuel 12.41. F.P. above 150°F. T.S. C.L.

The amount of Entry Fee ... £ 3 : - : When applied for,
 Special 25% ... £ 34 : 15 : 30 DEC 1941
 Donkey Boiler Fee ... £ 8 : 14 : When received,
 Travelling Expenses (if any) £ : : 19

Committee's Minute GLASGOW 30 DEC 1941

Assigned 1- Dec 12.41
 Fitted for oil fuel 12.41 F.P. above 150°F

J. B. Murray for A. J. Brown & W. Russell
 Engineer Surveyor to Lloyd's Register of Shipping.