

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

RETAIN

Received at London Office JUN 1929

Date of writing Report 19 When handed in at Local Office 3.6.1929 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 1.11.28 Last Survey 31.5.29
 Reg. Book. on the new steel S/S "BENWYVIS". (Number of Visits 67) Gross 5920 Tons Net 3751

Built at Glasgow By whom built Jas Bonnell & Co Ltd Yard No: 414 When built 1929

Engines made at Glasgow By whom made David Rowan & Co Engine No: 900 when made 1929

Boilers made at Glasgow By whom made David Rowan & Co Boiler No: 900 when made 1929

Registered Horse Power Owners Ben Line Steamers Ltd Port belonging to Leith

Nom. Horse Power as per Rule 675 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which Vessel is intended General cargo - Eastern trade.

ENGINES, &c. - Description of Engines *Quadruple expansion* REVS. per minute 75

Dia. of Cylinders 24 3/4 - 35 1/2 - 51 - 73 Length of Stroke 51 No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 14.45" Crank pin dia. 4 3/4" Crank webs Mid. length breadth 9 3/4" Thickness parallel to axis 9 3/4" as fitted 14 1/2" Crank pin dia. 4 3/4" Mid. length thickness 9 3/4" Thickness around eye-hole 6 3/8"

Intermediate Shafts, diameter as per Rule 13.77" Thrust shaft, diameter at collars as per Rule 14.437" as fitted 14" as fitted 15"

Tube Shafts, diameter as per Rule 16" Screw Shaft, diameter as per Rule 16" Is the tube shaft fitted with a continuous liner? yes

Bronze Liners, thickness in way of bushes as per Rule 3/4" Thickness between bushes as per Rule 1/16" 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? -

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? - 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 5'4"

Propeller, dia. 18'8" Pitch 18'6" No. of Blades 4 Material Bronze whether Moveable? yes Total Developed Surface 108 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 4" Stroke 27" Can one be overhauled while the other is at work? yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 27" Can one be overhauled while the other is at work? yes

Feed Pumps { No. and size one @ 12" x 9" x 24" Pumps connected to the Main Bilge Line (No. and size Ballast pump also General Bky - 8 1/2" x 8" How driven Steam Main Bilge Line How driven Steam steam

Ballast Pumps, No. and size one @ 10" x 10" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size none on at

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 2 @ 3 1/2"

In Holds, &c. No. 1 hold - 2 @ 3 1/2" No. 2 hold - 2 @ 3 1/2" No. 3 hold - 2 @ 3 1/2" No. 4 hold - 2 @ 3 1/2" and 1 @ 3 1/2" Tunnel well 1 @ 3 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 9" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 @ 3 1/2"

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? both

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? forward hold suction How are they protected? under timber boards

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 10430 Working Pressure 220

Is Forced Draft fitted? yes No. and Description of Boilers 3SB & 1 auxy

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes

PLANS. Are approved plans forwarded herewith for Shafting no Main Boilers yes Auxiliary Boilers yes Donkey Boilers -

Superheaters no General Pumping Arrangements Oil fuel Burning Piping Arrangements

SPARE GEAR. State the articles supplied: - As per Rules and in addition, - two bottom end bearings, one HP piston ring, one impeller and shaft for circulating pump, four propeller blades and one screw shaft.

The foregoing is a correct description,
 For David Rowan & Co. Ltd
 Arch. W. Grierson

Manufacturer.



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W346-0167

NOTE - The words which do not apply should be deleted.

088 PH

1928 Nov. 1-2-5-7-11 Dec 19-26 (1929) Jan 11-22-23-25-28 Feb 12-15-18-25-27-28 Mar 1-4-5-6-8-14-15-18-19
 20-21-22-25-26-27-29 Apr 2-3-4-8-9-10-11-12-15-16-17-18-20-22-23-24-25-26-29-30 May 2-3-6-9-14-15-16

Dates of Survey while building
 During progress of work in shops - - -
 During erection on board vessel - - -

Total No. of visits 67

Dates of Examination of principal parts—Cylinders 1-3-29 Slides 19-3-29 Covers 8-4-29
 Pistons 10-4-29 Piston Rods 15-4-29 Connecting rods 23-4-29
 Crank shaft 4-4-29 Thrust shaft 29-3-29 Intermediate shafts 4-4-29
 Tube shaft Screw shaft 3-4-29 Propeller 3-4-29
 Stern tube 21-3-29 Engine and boiler seatings 17-4-29 Engines holding down bolts 17-5-29
 Completion of fitting sea connections 8-4-29
 Completion of pumping arrangements 30-5-29 Boilers fixed 30-5-29 Engines tried under steam 31-5-29
 Main boiler safety valves adjusted 24-5-29 Thickness of adjusting washers Pist. bh. - P 3/8" 5/16". b. bh. - P 3/8" 5/16". s. bh. - both 3/8"

Crank shaft material I. Steel Identification Mark LLOYD'S NO. 806 4-4-29
 Thrust shaft material I. Steel Identification Mark LLOYD'S NO. 806 4-4-29
 Intermediate shafts, material I. Steel Identification Marks LLOYD'S NO. 806 4-4-29
 Tube shaft, material - Identification Mark LLOYD'S NO. 806 4-4-29
 Screw shaft, material I. Steel Identification Mark LLOYD'S NO. 806 4-4-29
 Steam Pipes, material Iron Test pressure 660 Date of Test 2-5-29

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 -

Is this machinery duplicate of a previous case yes If so, state name of vessel "Benquerachan"

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The materials and workmanship are good.
 The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good. It is eligible in my opinion for classification and the record -
 + L.M.C. 5, 29

It is submitted that this vessel is eligible for THE RECORD.
 + L.M.C. 5, 29 C.L. F.D.

A.S.
 3/6/29

6.6.29
 S. Davis
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : :
 Special ... £ 108 : 15 : 3 JUN 1929
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : : 6.6.29

Committee's Minute GLASGOW 4 JUN 1929

Assigned + L.M.C. 5, 29

The Surveyors are requested not to write on or below the space for Committee's Minutes.