

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 12 MAR 1930

Date of writing Report 22<sup>nd</sup> FEBRUARY 1930. When handed in at Local Office 4<sup>th</sup> MARCH, 1930. Port of Greenock

No. in Survey held at Greenock Date, First Survey 2<sup>nd</sup> JULY 1929 Last Survey 4<sup>th</sup> MARCH 1930.  
 Reg. Book. S/S Dalroy (Number of Visits 45)

Built at Greenock By whom built Scotts Shipbuilding & Engineering Co. Ltd. Yard No. 545 Tons { Gross 4554.64  
 Net 2831.02  
 When built 1930

Engines made at ditto By whom made Scotts Shipbuilding & Engineering Co. Ltd. Engine No. 614 when made 1930

Boilers made at ditto By whom made ditto Boiler No. 614 when made 1930

Registered Horse Power Owners United Steam Navigation Co. Ltd. Port belonging to Newcastle

Nom. Horse Power as per Rule 4154 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended Foreign

ENGINES, &c.—Description of Engines Quadruple Expansion Revs. per minute 72

Dia. of Cylinders 21 1/2 - 31 - 45 - 65 Length of Stroke 48 No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 13.55 as fitted 13.518 Crank pin dia. 13.518 Crank webs Mid. length breadth shrunk Thickness parallel to axis 8.518  
 Mid. length thickness shrunk Thickness around eye-hole 6.116

Intermediate Shafts, diameter as per Rule 13.9 as fitted 13 Thrust shaft, diameter at collars as per Rule 13.55 as fitted 13.518

Tube Shafts, diameter as per Rule shrunk as fitted shrunk Screw Shaft, diameter as per Rule 14.4 as fitted 14.518 Is the tube shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 1.44 as fitted 1.316 Thickness between bushes as per Rule 1.55 as fitted 1.718 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 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 Yes

Propeller, dia. 18.0 Pitch 14.6 No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 92 sq. feet

Feed Pumps worked from the Main Engines, No. None Diameter shrunk Stroke shrunk Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 Stroke 24 Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size 3 (2.95 x 12) (1.4 x 6) (1.2) Pumps connected to the { No. and size 2. (8 x 8) 10 x 12 x 12  
 How driven Steam Main Bilge Line How driven Steam

Ballast Pumps, No. and size one 10 x 12 x 12 Lubricating Oil Pumps, including Spare Pump, No. and size shrunk

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 2. 3 1/2 in. Eng Room 2. 3 1/2 in. Boiler Room 1. 3" Tunnel Hall  
 In Holds, &c. 3" Fore hold. 2. 3 1/2 Fore main hold. 2. 3 1/2 Deep Tank 2. 3 1/2 in after main hold

Main Water Circulating Pump Direct Bilge Suctions, No. and size one 8" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 15"  
 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 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 Bilge Suctions How are they protected covering  
 What pipes pass through the deep tanks ditto 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 UPPER PLATFORM

MAIN BOILERS, &c.—(Letter for record R) Total Heating Surface of Boilers 6300 #

Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended Working Pressure 250

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 Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes  
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:—  
2 Connecting Rod Bolts (nut) for top end. ditto for bottom end. 2 main Bearing bolts on all of connecting bolts on all of Feed & Bilge Pump frames a quantity of assorted bolts, nuts, washers of various sizes

The foregoing is a correct description,  
 SCOTTS' SHIPBUILDING & ENGINEERING COMPANY LIMITED.

Arch. Rennie Chief Draughtsman.

Manufacturer.



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4162-0215

Dates of Survey while building

(1929) July 2, 16, 25, 31; Aug 4, 14, 19, 22, 28, 30; Sept 5, 12, 14, 18, 25; Oct 3, 9, 16, 22, 23, 25, 28, 29; Nov 6, 4, 8, 11, 14, 19, 26, 29; Dec 4, 9, 11, 13, 16, 14, 18, 19, 24.

(1930) Jan 4, 9, 10, 13, 15, 16, 14, 20, 22, 23, 24, 24, 30; Feb 1, 3, 4, 5, 6, 4, 10, 11, 13, 14, 14, 18, 21, 24, 25, 26, 24, 28, 7 Mar 5, 6, 4.

Total No. of visits 45

Dates of Examination of principal parts—Cylinders 16-12-29 Slides 3-2-30 Covers 16-12-29  
 Pistons 3-2-30 Piston Rods 24-11-29 Connecting rods 24-1-30  
 Crank shaft 14-1-30 Thrust shaft 14-1-30 Intermediate shafts 4-1-30  
 Tube shaft ✓ Screw shaft 22-1-30 Propeller 22-1-30  
 Stern tube 14-1-30 Engine and boiler seatings 23-1-30 Engines holding down bolts 18-2-30  
 Completion of fitting sea connections 23-1-30  
 Completion of pumping arrangements 5-3-30 Boilers fixed 13-2-30 Engines tried under steam 6-3-30  
 Main boiler safety valves adjusted 5-3-30 Thickness of adjusting washers \$ 5/16 P 1/32 \$ 3/8 P 1/32 \$ 3/8 P 1/32  
 Crank shaft material S Identification Mark LR 614 CRR Thrust shaft material S Identification Mark LR 249 CRR  
 Intermediate shafts, material S Identification Marks 2408 2608 2618 Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material S Identification Mark LR 246 WGM Steam Pipes, material SDS Test pressure 750 lb Date of Test 6.2.30  
 Is an installation fitted for burning oil fuel 90 Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of the Rules for carrying and burning oil fuel been complied with. ✓  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S/S "Dalcron" Park Ref: 70 19149

General Remarks (State quality of workmanship, opinions as to class, &c. These engines & boilers have been built under special survey in accordance with the approved plans & the workmanship and material are of good quality. They are now securely fitted on board tried under steam & found satisfactory. The machinery is eligible in my opinion for the record of L.M.C. 3-30. Note The owner request the Classification Certificate in duplicate.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3-30 F.D. Cl.

W. Gordon-Mitchie  
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : - :  
 Special ... £ 93 : 11 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 4th MARCH 1930.  
 When received, 11.3.30

Committee's Minute GLASGOW 11 MAR 1930

Assigned + L.M.C. 3,30

CERTIFICATE NO. 1111 AEN  
 in Class. 12/2/30



GREENOCK OFFICE

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