

REPORT ON MACHINERY.

No. 40213
JUL 22 1920

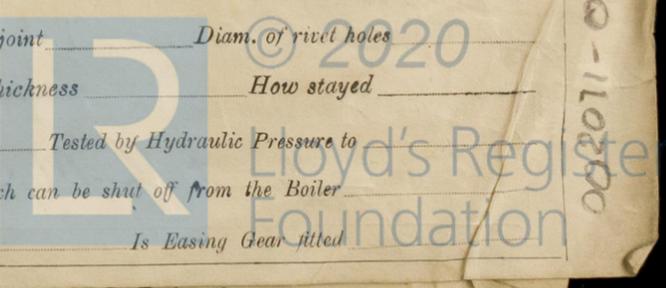
Received at London Office

Date of writing Report 19 When handed in at Local Office 20. 7. 1920 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 3. 6. 19. Last Survey 8. 7. 1920
 Reg. Book. on the S.S. "RONALD" (Number of Visits 48)
 Master Built at Pt Glasgow By whom built R Duncan Co (No 345) When built 1920
 Engines made at Glasgow By whom made W Rowan Co La (No 738) when made 1920
 Boilers made at Do By whom made Do (No 738) when made 1920
 Registered Horse Power Owners Port belonging to
 Nom. Horse Power as per Section 28 542.9 573 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27" 45" 74" Length of Stroke 51" Revs. per minute 67 Dia. of Screw shaft as per rule 15.27" Material of screw shaft Steel
 as fitted 15.2" Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes If the liner is in more than one length are the joints burned continuously 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 Length of stern bush 61 1/2"
 Dia. of Tunnel shaft as per rule 13.66" Dia. of Crank shaft journals as per rule 14.35" Dia. of Crank pin 14 1/2" Size of Crank webs 28 1/2 x 9 1/4" Dia. of thrust shaft under
 collars 14 3/4" Dia. of screw 18-6" Pitch of Screw 18' 0" No. of Blades 4 State whether moveable No Total surface 103 sq ft
 No. of Feed pumps 2 Diameter of ditto 8" Stroke 21" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 27" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps Ballast 9 x 12 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room (2) 3 1/2" Stokes (2) 3 1/2" In Holds, &c. Gang hold (4) (2) 3 1/2" cross pump
 (2) 3 1/2" Gang hold (aft) (2) 3 1/2" Tunnel well (1) 2 1/2"
 No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
 Are all connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes 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 are carried through the bunkers None How are they protected —
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper Deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel W. Bell & Co Ltd Glasgow
 Total Heating Surface of Boilers 8700 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Single ended
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 8. 3. 20 No. of Certificate 15160
 Can each boiler be worked separately Yes Area of fire grate in each boiler 64 sq ft No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 11.19" Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 2' 0" Mean dia. of boilers 16' 0" Length 11' 6" Material of shell plates Steel
 Thickness 1 7/8" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap
 long. seams TR DBS Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 19 1/2"
 Per centages of strength of longitudinal joint rivets 87.2 Working pressure of shell by rules 180 Size of manhole in shell 16 x 12"
 plate 85.6 No. and Description of Furnaces in each boiler 3 Corrugated Material Steel Outside diameter 51 3/8"
 Size of compensating ring end flanged Length of plain part top 19" Description of longitudinal joint Welded No. of strengthening rings —
 bottom 32" Working pressure of furnace by the rules 184 Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 1/2" Top 3/4" Bottom 3/4"
 Pitch of stays to ditto: Sides 9 1/2 x 0 1/2" Back 0 8 x 8 7/16" Top 0 4 x 0 1/2" If stays are fitted with nuts or riveted heads None Working pressure by rules 182
 Material of stays Steel Area at smallest part 2.94 Area supported by each stay 108 Working pressure by rules 200 End plates in steam space:
 Material Steel Thickness 1 3/32" Pitch of stays 21 1/2 x 2 3/4" How are stays secured DN Working pressure by rules 187 Material of stays Steel
 Area at smallest part 8.29 Area supported by each stay 473 Working pressure by rules 187 Material of Front plates at bottom Steel
 Thickness 7/8" Material of Lower back plate Steel Thickness 5/16" Greatest pitch of stays 13 1/8" Working pressure of plate by rules 195
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4 x 3 3/8" Material of tube plates Steel Thickness: Front 29/32" Back 3/4" Mean pitch of stays 9 7/8"
 Pitch across wide water spaces 13 1/4" Working pressures by rules 180 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 1/2 x 8 (2) Length as per rule 32 9/16" Distance apart 10 1/4" Number and pitch of stays in each (2) 10 1/2"
 Working pressure by rules 182 Steam dome: description of joint to shell None % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type None Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted



IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 2 Top and bolts & nuts, 2 bottom and bolts and nuts, 2 main bearing bolts and nuts, 1 set Coupling bolts and nuts, 1 set of feed and bilge Pump Valves, Iron bolts and nuts assorted, and other articles.

The foregoing is a correct description,

Dand Rowan & Co Ltd
Perth & Dundee Manufacturer.

Dates of Survey while building: During progress of work in shops - 1919 June 3, July 14, Aug 21, 25, Sept 25, Oct 9, 15, 16, Nov 3, 5, 20, Dec 1, 24. During erection on board vessel - 1920 Jan 12, 15, 20, 23, 28, Feb 4, 10, 12, 25, Mar 1, 8, 12, 17, 26, 30, Apr 12, 14, 19, May 5, 13, 14, 18, 19, June 7, 10, 17, 18, 21, 25, 29, 30, July 1, 2, 5, 8. Total No. of visits 48

Is the approved plan of main boiler forwarded herewith? Yes

Dates of Examination of principal parts - Cylinders 5.11.19, Slides 5.11.19, Covers 5.11.19, Pistons 20.1.20, Rods 20.1.20

Connecting rods 10.2.20, Crank shaft 23.1.20, Thrust shaft 30.3.20, Tunnel shafts 14.4.20, Screw shaft 26.3.20, Propeller 26.3.20

Stern tube 12.4.20, Steam pipes tested 14.5.20, Engine and boiler seatings 15.5.20, Engines holding down bolts 10.6.20

Completion of pumping arrangements 5.7.20, Boilers fixed 10.6.20, Engines tried under steam 2.7.20, 8-7.20

Completion of fitting sea connections 23.4.20, Stern tube 23.4.20, Screw shaft and propeller 23.4.20

Main boiler safety valves adjusted 2.7.20, Thickness of adjusting washers: Stabs P 7/16 S 7/16, Cams B 1 7/16 S 13/32 P 13/16 S 13/32

Material of Crank shaft Steel, Identification Mark on Do. TM 23.1.20, Material of Thrust shaft Steel, Identification Mark on Do. LR 20.2945

Material of Tunnel shafts Steel, Identification Marks on Do. 738 LR 54, Material of Screw shafts Steel, Identification Marks on Do. 738 LR 26, TM 26.3.20

Material of Steam Pipes Iron, Test pressure 600 lb sq in

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 Section 49 of the Rules been complied with? -

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.)

LR 1261, LR 1463, LR 1114, LR 1121, LR 1232, LR 1250
738, 738, 738, 738, 738, 738
TM 14.4.20, TM 14.4.20, TM 14.4.20, TM 14.4.20, TM 14.4.20, TM 14.4.20

The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved Plans and has been seen working satisfactorily under steam. Materials and workmanship are good.

The machinery is, in our opinion, eligible to be classed + L.M.C. 7.20.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 7.20. F.D.

JWD 27/7/20, JRS

The amount of Entry Fee ... £ 3 : - :
Special ... £ 48 : 13 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for, 21.7.20
When received, 31/8/20
Jas Easthope, M.B. Curran, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 21 JUL 1920
Assigned + L.M.C. 7.20. F.D.



GLASGOW

Certificate (if required) to be sent to
The Signatories are requested not to write on or below the space for Committee's Minute.