

REPORT ON MACHINERY

No. 41196

Received at London Office

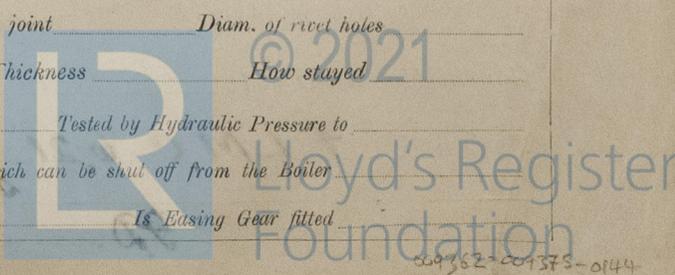
WED. 29 JUN. 1921

Date of writing Report 24. 6. 1921 When handed in at Local Office 24. 6. 1921 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 23rd Sept 1919 Last Survey 21st June 1921
 Reg. Book. S.S. Garryowen II (Number of Visits 75)
 on the S.S. Garryowen II Tons { Gross 468 Net 194
 Master Port Glasgow By whom built Geo Brown & Co When built 1921
 Engines made at Glasgow By whom made McKie & Baxter. No 955 when made 1921
 Boilers made at Glasgow By whom made Alex Stephen Sons when made 1921
 Registered Horse Power 166 Owners Propelling 14.5 NHP for Reg. BK. Port belonging to Limerick
 Nom. Horse Power as per Section 28 166 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple expansion Surface Condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 16 1/2 - 27 - 44 Length of Stroke 30 Revs. per minute 103 Dia. of Screw shaft 9 3/8 Material of screw shaft Steel
 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 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 Length of stern bush 36 inches
 Dia. of Tunnel shaft 8 7/8 Dia. of Crank shaft journals 8 6/8 Dia. of Crank pin 8 7/8 Size of Crank webs 5 1/2 x 16 Dia. of thrust shaft under collars 8 7/8 Dia. of screw 11-6 Pitch of Screw 13-6 No. of Blades 4 State whether moveable No Total surface 48.4 Sq ft.
 No. of Feed pumps 2 Diameter of ditto 5 1/4 Stroke 14 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 duplex Diameter of ditto 6 Stroke 6 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines one duplex Sizes of Pumps 4 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3-2 1/2
 In Engine Room 3-2 1/2 In Holds, &c. ford engine room 2-2" Steam ejector
 also fitted in ford engine room drawing from a bilge suction 2" diameter
 No. of Bilge Injections 1 sizes 5 1/2 Connected to condenser Yes to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes. 3"
 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 Yes
 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 Yes
 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 Yes

BOILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers 2120 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended Muelbubalar
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 13-2-20 No. of Certificate 15098
 Can each boiler be worked separately Yes Area of fire grate in each boiler Two spray loaded No. and Description of Safety Valves to each boiler Two spray loaded Area of each valve 4.9 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 20" Length 20" Material of shell plates Steel
 Thickness 1/2" Range of tensile strength 40,000 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes
 long. seams Yes Diameter of rivet holes in long. seams 1/4" Pitch of rivets 2" Lap of plates or width of butt straps 1"
 Per centages of strength of longitudinal joint 85% Working pressure of shell by rules 185 lbs Size of manhole in shell 18"
 Size of compensating ring 18" No. and Description of Furnaces in each boiler Two spray loaded Material Steel Outside diameter 20"
 Length of plain part 10" Thickness of plates 1/2" Description of longitudinal joint See separate Glasgow Report here with No. of strengthening rings 2
 Working pressure of furnace by the rules 185 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"
 Pitch of stays to ditto: Sides 12" Back 12" Top 12" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 185 lbs
 Material of stays Steel Area at smallest part 12" Area supported by each stay 12" Working pressure by rules 185 lbs End plates in steam space: Yes
 Material Steel Thickness 1/2" Pitch of stays 12" How the stays secured Yes Working pressure by rules 185 lbs Material of stays Steel
 Area at smallest part 12" Area supported by each stay 12" Working pressure by rules 185 lbs Material of Front plates at bottom Steel
 Thickness 1/2" Material of Lower back plate Steel Thickness 1/2" Greatest pitch of stays 12" Working pressure of plate by rules 185 lbs
 Diameter of tubes 1 1/2" Pitch of tubes 12" Material of tube plates Steel Thickness: Front 1/2" Back 1/2" Mean pitch of stays 12"
 Pitch across wide water spaces 12" Working pressures by rules 185 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 12" Length as per rule 12" Distance apart 12" Number and pitch of stays in each 12"
 Working pressure by rules 185 lbs Steam dome: description of joint to shell Yes % of strength of joint 85%
 Diameter 12" Thickness of shell plates 1/2" Material Steel Description of longitudinal joint Yes Diam. of rivet holes 1/4"
 Pitch of rivets 2" Working pressure of shell by rules 185 lbs Crown plates Yes Thickness 1/2" How stayed Yes

SUPERHEATER. Type See separate Glasgow Report here with Date of Approval of Plan 13-2-20 Tested by Hydraulic Pressure to 360
 Date of Test 13-2-20 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 1 1/2" Pressure to which each is adjusted 185 lbs Is Easing Gear fitted Yes



IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *1 set each of top & bottom end, main bearing & coupling bolts with nuts, 1 set of feed pump valves, 1 set of bilge pump valves, 6 condensers tubes & 24 ferrules & boiler tubes (plain) 1 man & 1 donkey check valves, assorted bolts, nuts & brass iron.*

The foregoing is a correct description,

McKie & Baxter

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1919 Sep 23 24 25 Oct 6 22 Nov 27 (1920) Jan 29 Feb 2 19 21 16 Mar 10 22 24 Apr 19 20 May 8 12 17 20 24 26 27 31 Jun 1 3 7 9 17 21 22 23 28 29 30
During erection on board vessel - - - July 1 6 7 Aug 2 3 5 9 16 17 25 Sep 16 Oct 14 20 Nov 8 22 29 Dec 7 16 24 27 (1921) Jan 11 22 17 24 25 31 Feb 7 15 21 23 28 Mar 3 5 7 11 16 22 Apr 14 Jun 1
Total No. of visits *75.*

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders *27/12/20* Slides *12/1/21, 24/1/21* Covers *12/1/21* Pistons *27/12/20* Rods *27/12/20*

Connecting rods *24/12/20* Crank shaft *24/12/20* Thrust shaft *16/9/20* Tunnel shafts *6/7/20* Screw shaft *6/7/20* Propeller *6/7/20*

Stern tube *6/7/20* Steam pipes tested *16/3/21, 23/3/21* Engine and boiler seatings *15/7/20, 16/7/20* Engines holding down bolts *21/2/21*

Completion of pumping arrangements *21-6-21* Boilers fixed *13/6/21* Engines tried under steam *21-6-21*

Completion of fitting sea connections *Deck 15/7/20, 16/7/20* Stern tube *15/7/20, 16/7/20* Screw shaft and propeller *15/7/20, 16/7/20*

Main boiler safety valves adjusted *22/3/21* Thickness of adjusting washers *P P 1/4" S 5/16" S. P 3/8" S 3/8"*

Material of Crank shaft *Steel* Identification Mark on Do. *955 Lloyd's 24/12/20* Material of Thrust shaft *Steel* Identification Mark on Do. *955 Lloyd's 16/9/20*

Material of Tunnel shafts *Steel* Identification Marks on Do. *955 Lloyd's 6/7/20* Material of Screw shafts *Steel* Identification Marks on Do. *955 Lloyd's 6/7/20*

Material of Steam Pipes *Solid brown mild steel* Test pressure *540 lbs per sq. inch*

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. *This machinery has been constructed under special survey. The workmanship & materials are good & sound, with the exception of the Intermediate & Low pressure Cylinders which have to be examined at the end of twelve months, see London Ltr to Messrs Angus & Smith Lt Hull dated 20 Aug 1920*

These Ingersoll Boilers have been fitted on board in a satisfactory manner, tried under working conditions and are eligible in our opinion to be classed with record of L.M.C 6-21, subject to the Intermediate and Low Pressure Cylinders being examined at the end of twelve months (i.e. 6-22).

It is submitted that this vessel is eligible for THE RECORD + LMC 6.21. FD. CL. 145 N.H. Subject to the I.P. & L.P. cylinders being examined before the end of June 1922.

The amount of Entry Fee ... £ *3* : 0 :
Special ... £ *41* : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for. *24.6.21.*
When received. *30/6/21*
MACHINERY CERTIFICATE WRITTEN *30/6/21*
W. H. Regan & J. Selles
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW. 28 JUN 1921*
Assigned *+ LMC 6.21*
subject to
FD.
Note Limit



Certificate (if required) to be sent to

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