

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
 Master Built at Port Glasgow By whom built Geo Brown & Co
 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 Owners Port belonging to Limerick
 Combined Propelling & Hauling 1166. Propelling 145 NHP for Reg. BK.
 Nom. Horse Power as per Section 28 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 16½ - 27 - 44 Length of Stroke 30 Revs. per minute 103 Dia. of Screw shaft as per rule 9¾ as fitted 9¾ 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 ✓ 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 ✓ If two
 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 36 inches
 Dia. of Tunnel shaft as per rule 8½ as fitted 8½ Dia. of Crank shaft journals as per rule 8½ as fitted 8½ Dia. of Crank pin 8¾ Size of Crank webs 5½ x 16 Dia. of thrust shaft under
 collars 8¾ 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 5¼ 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 4½ x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-2½ 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 5½ Connected to condenser, 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 ✓
 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers 2120 ft² Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended Machbubalar
 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 Area of fire grate in each boiler No. and Description of Safety Valves to
 each boiler Two spring loaded Area of each valve 4.9 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 Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays Height stays secured Working pressure by rules Material of stays
 Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes See Separate Glasgow Report here with Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules Steam dome: description of joint to shell % 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

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

Lloyd's Register
Foundation

009362-001375-0144

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 main & 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 12 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 ☒

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 *Dec 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. Bound, 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 ... £ *4* : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *24.6.21.*
When received, *30/6/21*

Committee's Minute

Assigned *+ LMC 6.21*

subject to

FD.

Note Limit

TUE DEC. 5 1922



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