

## REPORT ON MACHINERY.

No. 40952

Received at London Office

WED. 16 MAR. 1921

Date of writing Report 14 March 1921 When handed in at Local Office 14 March 1921 Port of Glasgow  
No. in Survey held at Glasgow Date, First Survey 5-2-1920 Last Survey 9-3-1921  
Reg. Book. S.S. "Corpio" (Number of Visits 59)  
on the  
Master Liverpool Built at Liverpool By whom built A & C Grayson Tons } Gross  
Engines made at Glasgow By whom made McKie & Baxter when made 1921 } Net  
Boilers made at Birkenhead By whom made Cammell, Laird Ltd. when made  
Registered Horse Power MacAndrews & Co. Port belonging to London  
Nom. Horse Power as per Section 28 252 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 21-34-56 Length of Stroke 36 Revs. per minute Dia. of Screw shaft as per rule 11.75 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 4'-0"  
Dia. of Tunnel shaft as per rule 10.22 Dia. of Crank shaft journals as per rule 10.73 Dia. of Crank pin 11" Size of Crank webs 78x20 Dia. of thrust shaft under  
collars 11" Dia. of screw 14'-9" Pitch of Screw 15'-0" No. of Blades 4 State whether moveable yes Total surface 70 sq ft.  
No. of Feed pumps 2 Diameter of ditto 3 Stroke 21 Can one be overhauled while the other is at work yes  
No. of Bilge pumps 2 Diameter of ditto 3 Stroke 21 Can one be overhauled while the other is at work yes  
No. of Donkey Engines 3 Sizes of Pumps 8x8x8 8x6x12 8x6x12 No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size  
Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible  
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate  
What pipes are carried through the bunkers How are they protected  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges  
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

## BOILERS, &amp;c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 4550 Is Forced Draft fitted No. and Description of Boilers  
Working Pressure 180 Tested by hydraulic pressure to Date of test No. of Certificate  
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to  
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear  
Smallest distance between boilers or uptakes and bunkers or woodwork 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 Thickness of plates 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 How are 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 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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Hickie & Baxter

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1920: Feb 5-14-23-24 Mar 1-2-9-10-16-17-24 Apr 21-27 May 31 Jun 9-16-30 July 15 Aug 2-9-16-17 Sep 1-4-16-29 Oct 6 Nov 3-5-10-15-17 Dec 7  
During erection on board vessel - - - 1920: Feb 10-21-24 (1921) Jan 17-20-27-29-31 Feb 1-2-3-7-8-10-14-15-17-21-22-24-28 Mar 1-7-8-9  
Total No. of visits 59

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 24-2-21 Slides 2-2-21 21-2-21 Covers 21-2-21 Pistons 2-2-21 2-2-21 Rods 28-2-21

Connecting rods 24-2-21 Crank shaft 17-2-21 Thrust shaft 3-11-20 Tunnel shafts 29-9-20 Screw shaft 15-11-20 Propeller 17-11-20

Stern tube 15-11-20 Steam pipes tested ✓ Engine and boiler seatings ✓ Engines holding down bolts ✓

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓

Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓

Material of Crank shaft Steel Identification Mark on Do. 979 Lloyd's 21/2/21 Material of Thrust shaft Steel Identification Mark on Do. 979 Lloyd's 2-11-20

Material of Tunnel shafts Steel Identification Marks on Do. 979 Lloyd's 29/9/20 Material of Screw shafts Steel Identification Marks on Do. 979 Lloyd's 15/11/20

Material of Steam Pipes ✓ Test pressure ✓

Is an installation fitted for burning oil fuel ✓ 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 Yes. If so, state name of vessel S. S. Le Rhin.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the Rules. The workmanship and materials are good.

The engines are being forwarded to Liverpool to be fitted on board.

The machinery of this vessel will in my opinion be eligible to be classed \*LMC with date when securely fitted on board and satisfactorily tried under steam.

The amount of Entry Fee ... £ 4 : 0 :

Special (2/5ths) .. £ 25 : 2/6 :

Donkey Boiler Fee ... £ : :

Travelling Expenses (if any) £ : :

When applied for,

15/3/21

When received,

14-5-1921

Con. ltr. to Gov.  
L. P. H.

Peter McChregor.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW.

Assigned Deferred.



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