

REPORT ON MACHINERY.

No. 7905

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Date of writing Report 28th Jan 18 When handed in at Local Office 19 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 26th June 1917 Last Survey 23rd Jan 1918
 Reg. Book. P.S. War Python (Number of Visits 30)
 Master H. L. Butt Built at Belfast By whom built Harland & Wolff Tons { Gross 5155 Net 3124
 Engines made at Belfast By whom made Harland & Wolff When built 1918
 Boilers made at Belfast By whom made Harland & Wolff when made 1918
 Registered Horse Power 518 Owners The Shipping Controller Port belonging to London
 Nom. H.P. Power as per Section 28 518 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Screw Triple Expansion of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27"-44"-78" Length of Stroke 48" Revs. per minute 78 Dia. of Screw shaft 14.68 Material of S. Steel
 as per rule 15.5 as fitted 15.5 screw shafts
 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 60 1/2"
 Dia. of Tunnel shaft 13.3 as per rule 13.9 Dia. of Crank shaft journals 13.5 as fitted 14.5 Dia. of Crank pin 4 1/2" Size of Crank web 28 x 9 Dia. of thrust shaft under
 collars 4 1/2" Dia. of screw 17'-6" Pitch of Screw 16'-6" No. of Blades 4 State whether moveable No Total surface 102 1/2 sq ft
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines See other end No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4-3 1/2" In Holds, &c. 9-3 1/2" & 1-3"
 No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Pump a separate Donkey Suction fitted in Engine room & size 1-3 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 Yes
 Are all connections with the sea direct on the skin of the ship Yes - Except Main Tank inspection chest 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 Below
 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 bunker Fore hold suction How are they protected Wood Casings
 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
 Dates of examination of completion of fitting of Sea Connections 6-6-17 of Stern Tube 6-6-17 Screw shaft and Propeller 12-12-17
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door No - w^o trunk from deck worked from deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel R. Colville & Sons L^{td}
 Total Heating Surface of Boilers 7668 sq ft forced Draught fitted Yes No. and Description of Boilers 3 Single End Cylind^r
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 17-12-17 No. of Certificate 516
 Can each boiler be worked separately Yes Area of fire grate in each boiler 63 1/2 sq ft No. and Description of Safety Valves to
 each boiler 2 - Direct Spring Area of each valve 9.62 sq in pressure to which they are adjusted 785 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Hand span dia. of boilers 5'-6" Length 11'-6" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seam L. P.
 long. seam Butt Seamer diameter of rivet holes in long. seams 1 7/16" 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 88.3 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"
 plate 85.6 Size of compensating ring Plate flange and Description of Furnaces in each boiler 3 - Brighton Material Steel outside diameter 50 3/16"
 Length of plain part 5" Thickness of plates 3 1/2" Description of longitudinal joint Weld No. of strengthening rings Yes
 Working pressure of furnace by the rules 188 lbs combustion chamber plates: Material Steel Thickness: Sides 2 3/32" Back 1/16" Top 2 3/32" Bottom 2 3/32"
 Pitch of stays to ditto: Sides 10 1/2" x 9 1/4" Back 9 1/2" x 8 1/4" - 10 1/2" x 9 1/4" stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lbs
 Material of stay Steel Diameter at smallest part 2.3 1/8" Area supported by each stay 984 sq in Working pressure by rules 186 lbs and plates in steam space:
 Material Steel thickness 1/32" Pitch of stays 21 1/2" x 21 1/2" - 20 1/2" x 21 1/2" - 21 1/2" x 21 1/2" Area supported by each stay 459 3/8 sq in Working pressure by rules 187 lbs Material of stays Steel
 Thickness 3/32" Material of Lower back plate Steel Thickness 2 1/2" Greatest pitch of stays 13 5/8" Working pressure of plate by rules 186 lbs
 Diameter of tube 2 1/2" Pitch of tubes 4" x 3 1/8" Material of tube plate Steel thickness: Front 3/32" Back 1/4" Mean pitch of stays 12" x 7 1/4"
 Pitch across wide water spaces 13 5/8" Working pressures by rules 181 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 10" x (7 1/2") Length as per rule 35 1/2" Distance apart 10 1/2" Number and pitch of stays in each 3-9 1/4"
 Working pressure by rules 182 lbs Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked
 separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet
 holes Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes
 If stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes
 Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

If not, state whether, and when, one will be sent

VERTICAL DONKEY BOILER—

Manufacturers of Steel *Noue*

No.	Description	When made	Where fixed
Made at	By whom made		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
If fitted with casing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

SPARE GEAR. State the articles supplied:— *See other sheet*

The foregoing is a correct description,
See other sheet

W.D. Murray
Manufacturer.

Dates of Survey while building
 During progress of work in shops --
 During erection on board vessel ---
 Total No. of visits 30

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 3 - Slides 9 - 17 Covers 5 Rods 5

Connecting rods 11-13-17 Crank shaft 11- Thrust shaft 17 Turret shaft 17 Screw shaft 17-17 Propeller 13-17-18

Stern tube 13-11-17 Steam pipes tested 7-9-17 Engine and boiler seatings 2-1-17 Engines holding down bolts 22-1-18

Completion of pumping arrangements 22-1-18 Boilers fixed 4-1-17 Engines tried under steam 6-1-18

Main boiler safety valves adjusted 16-1-18 Thickness of adjusting washers 6-16"

Material of Crank shaft *Steel* Identification Mark on Do. *LOYDS* Material of Thrust shaft *Do* Identification Mark on Do. *Do*

Material of Turret shafts *Do* Identification Marks on Do. *Do* Material of Screw shafts *Do* Identification Marks on Do. *Do*

Material of Steam Pipes *W. Iron* Test pressure 540 lb.

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

The machinery of this vessel has been constructed under special survey, and in accordance with the Rules; also as per specification and instructions issued by the Shipping Control. The workmanship and the materials are of good description and on trial under steam in Belfast Lough, the machinery worked satisfactorily.

In my opinion, it is eligible for records + L.M.C. 1-18 with notation "Forced Draft" + "Electric Light"

No oil fuel burning installation fitted
 Machinery duplicate of S.S. War Shamrock War Clonoe War Luffna War Cash

It is submitted that
 this vessel is eligible for
 THE RECORD + L.M.C. 1. 18. F.D.

The amount of Entry Fee	£	When applied for.	28-1-18
Special <i>Including</i>	11-11-18		
Donkey Boiler Fee	£	When received.	16-3-18
Travelling Expenses (if any)	£		18-3-18

Committee's Minute
 Assigned *+ L.M.C. 1. 18*
F.D.

R. J. Brennan
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

- S.S. War Python*
 List of Pump
- 1 Ballast 10 1/2" x 14" x 24" ✓
 - 1 General 9 1/2" x 7" x 18" ✓
 - 1 Feed 9 1/2" x 7" x 18" ✓
- List of Spare Gear
- 1 Propeller, C. Iron, Solid ✓
 - 1 H.P. piston valve ✓
 - 2 Top end bolts ✓
 - 2 Bottom " " ✓
 - 2 Main bearing " ✓
 - 3 Crank shaft coupling bolts + nuts ✓
 - 3 Tunnel " " ✓
 - 1 Feed pump suction valve ✓
 - 1 " " discharge " ✓
 - 1 Bilge " suction " ✓
 - 1 " " discharge " ✓
 - 3 Main feed check valves ✓
 - 3 Donkey " " ✓
 - 24 Bolts + nuts ✓
 - 6 cylinder cover studs + nuts ✓
 - 6 Steam chest " " ✓
 - 12 Link ring " " ✓
 - 5 Bars round iron ✓
 - 3 " flat " ✓
 - Spare fire bars etc. ✓