

REPORT ON MACHINERY.

No. 6694

Port of Belfast Received at London Office MON. 15 NOV 1909
 No. in Survey held at Belfast Date, first Survey 28 July 1908 Last Survey 6 Nov 1909
 Reg. Book. Y.P. Quisto (Number of Visits 122)
 on the Y.P. Quisto Tons Gross 12180 Net 7421
 Master Belfast Built at Belfast By whom built Thurman Clark Bayly When built 1909
 Engines made at Belfast By whom made Thurman Clark Bayly when made 1909
 Boilers made at Belfast By whom made Thurman Clark Bayly when made 1909
 Registered Horse Power ✓ Owner Agent S. Navigation Co Ltd Port belonging to Belfast
 Nom. Horse Power as per Section 28 1944 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Four Stroke Quadruple Expansion of Cylinders 8 No. of Cranks 8
 Dia. of Cylinders 29-41-59-84 Length of Stroke 60 Revs. per minute 80 Dia. of Screw shaft as per rule 16.9 Material of Steel
 as fitted 18.72 screw shaft ✓
 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 6'-0"
 Dia. of Tunnel shaft as per rule 16.82 Dia. of Crank shaft journals as per rule 16.41 Dia. of Crank pin 18 Size of Crank web 24 1/2 x 12 Dia. of thrust shaft under
 collars 14 1/2 Dia. of screw 18-0 Pitch of Screw 23-3 No. of Blades 4 State whether moveable Yes Total surface 95 sq ft.
 No. of Feed pumps 2 Diameter of ditto None an Main Engines Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 2 Diameter of ditto Stroke Can one be overhauled while the other is at work ✓
 No. of Donkey Engines See other sheet No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 12-3 1/2" In Holds, &c. 12-3 1/2"

No. of Bilge Injections 2 sizes 12" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 5-5 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 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 Both
 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 Five Hotk 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 2-7-09 of Stern Tube 21-6-09 Screw shaft and Propeller 2-7-09
 Is the Screw Shaft Tunnel watertight States when it fitted with a watertight door Yes worked from Engine Room Top Platform

BOILERS, &c.—(Letter for record 3) Manufacturers of Steel Thurman Clark Bayly
 Total Heating Surface of Boilers 24708 sq ft. Draft fitted Yes No. and Description of Boilers 4 Double End of End
 Working Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 28-6-09 No. of Certificate 419
 Can each boiler be worked separately Yes Area of fire grate in each boiler 1468 sq ft. No. and Description of Safety Valves to
 each boiler 3 Direct Spring Area of each valve 12.56 sq ft. Pressure to which they are adjusted 215 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18 in Mean dia. of boilers 16-4 1/2 Length 20-2 1/2 Material of shell plates Steel
 Thickness 1 1/8 Range of tensile strength 3 1/2 535 tons the shell plates welded or flanged No Descrip. of riveting: cir. seams L.P.S.
 long. seams Butt Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 10 Lap of plates or width of butt straps 23 1/2
 Per centages of strength of longitudinal joint rivets 102.5 Working pressure of shell by rules 251 lbs Size of manhole in shell 16 x 12
 Size of compensating ring McNeil No. and Description of Furnaces in each boiler 8 Wrighton Material Steel Outside diameter 44 1/2
 Length of plain part top 2 Thickness of plates crown 3 1/2 Description of longitudinal joint Weld No. of strengthening rings 27
 bottom 8 bottom 8 1/4 Working pressure of furnace by the rules 234 lbs Combustion chamber plates: Material Steel Thickness: Sides 3 1/2 Back 3 1/2 Top 3 1/2 Bottom 1
 Pitch of stays to ditto: Side 8 1/2 x 7 1/8 Back 8 1/2 x 6 1/2 Top 8 1/2 x 6 1/2 If stays are fitted with nuts or riveted heads Nuts in Working pressure by rules 233 lbs
 Material of stay Steel Diameter at smallest part 1 1/2 Area supported by each stay 62 1/2 Working pressure by rules 251 lbs End plates in steam space:
 Material Steel Thickness 1 1/4 Pitch of stays 20 1/2 x 16 How are stays secured Nuts Working pressure by rules 217 lbs Material of stays Steel
 Diameter at smallest part 1 1/2 supported by each stay 330 sq ft. Working pressure by rules 247 lbs Material of Front plates at bottom Steel
 Thickness 1 Material of Lower back plate ✓ Thickness ✓ Greatest pitch of stays ✓ Working pressure of plate by rules ✓
 Diameter of tubes 2 1/2 Pitch of tubes 3 1/2 x 3 5/8 Material of tube plates Steel Thickness: Front 29 Back 16 Mean pitch of stays 7 1/2 x 7 1/2
 Pitch across wide water spaces 13 1/2 Working pressures by rules 259 lbs with 29 to Chamber tops: Material Steel Depth and
 thickness of girder at centre 14 x (3 x 2) Length as per rule 53 1/2 Distance apart 8 1/2 x 7 1/2 Number and pitch of stays in each 6-6 1/2
 Working pressure by rules 227 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet
 holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓
 Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

W567-0210

VERTICAL DONKEY BOILER— *Manufacturers of Steel*

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing 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	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates		Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—

SPARE GEAR. State the articles supplied:— Piston rods & knuts; 2 pairs Bottom End Turnasses.
4 pairs Top End Turnasses; main guides & shoes; 2 Venturo & Turps & rods; 2
Slide valves & spindles; sets packing rings & springs for 4 pistons; set
packing rings for 2 piston valves; 4 thrust block shoes; 2 propeller keys.
The foregoing is a correct description, & price per pump & all gear to Lloyd
FOR WORKMAN, CLARK & CO., LIMITED
W. H. Bell Manufacturer.
Ruler's Office.

FOR WORKMAN, CLARK & CO., LIMITED

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1908 - July 28. 30. Aug. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.
	During erection on board vessel - -	3. 6. 11. 13. 16. 18. 23. 24. 26. 30. Nov. 1. 7. 10. 14 up to 6 th Nov ^r 1909
	Total No. of visits	122

Is the approved plan of main boiler forwarded herewith *No - Yes*

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Dates of Examination of principal parts—Cylinders 9-6-09 Stiles Covers Do Rods Do

Connecting rods 7-4-09 Crank shaft 20-6-09 Thrust shaft Do Tunnel shaft Do Screw shaft 14-6-09 Propeller 14-6-09

Stern tube 14-6-09 Steam pipes tested 24-2-09 5-10-09 Engines and boiler seatings 21-4-09 Engines holding down bolts 6-9-09

Completion of pumping arrangements 11-10-09 Boilers fixed 21-4-09 Engines tried under steam 17-9-09

Main boiler safety valves adjusted 17-25 Thickness of adjusting washers 9-14
9-09 32

Material of Crank shaft P. Lacy Identification Mark on Do. 440425 R.J.B Material of Thrust shaft Do Identification Mark on Do. 30-6-09

Material of Tunnel shafts Do Identification Marks on Do. 5-7-09 Material of Screw shafts Do Identification Marks on Do. 440425

Material of Steam Pipes W. Swan ✓ Test pressure 650 lbs ✓ 9-5-09
14-6-09

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

The machinery of this vessel, which is a duplicate of that fitted in the H.S. "Ostranto," has been constructed under Special Survey, and in accordance with the Rules. The materials and the workmanship are of good description, and on trial under steam, the machinery worked satisfactorily.

In my opinion, it is capable for service + L.M.C. 11-09 ✓
with notation "Forced Draft & Electric Light & Refrigerating Machine"

+LMC. 71. 09.
F.D. Ref Mach

The amount of Entry Fee.	£	3	:	0	:	When applied for.
Special	£	94	:	8	:	9-11-99
Donkey Boiler Fee	£	:	:	:	:	When received.
Travelling Expenses (if any)	£	:	:	:	:	12-11-99

Committee's Minute

Assigned

TUES. 16 NOV 1966

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MACHINERY CERTIFICATE
WRITTEN.

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

Lloyd's Register
Foundation