

Received at London Office

MUNDOCT 1919

Date of writing Report 17th Oct 1919 When handed in at Local Office 10

Port of Belfast

No. in Survey held at Belfast
Reg. Book.Date, First Survey 17th Oct 1918 Last Survey 16th Oct 1919

(Number of Visits 4)

on the

PS. New Toronto

Master

Built at

Belfast

By whom built

Harland & Wolff L^d

Tons

Gross 6568

Net 4044

When built

1919

Engines made at

Belfast

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Elder Dempster & Co L^d

Port belonging to

Liverpool

Nom. Horse Power as per Section 28

578

517

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines Simple Reciprocating Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27-44-73 Length of Stroke 48 Revs. per minute 79 Dia. of Screw shaft as per rule 14.76 Material of I. Steel
as fitted 15.75 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 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 63"
Dia. of Tunnel shaft as per rule 13.33 Dia. of Crank shaft journals as per rule 13.99 Dia. of Crank pin 14 3/4 Size of Crank webs 28 x 9 Dia. of thrust shaft under
as fitted 13.875 as fitted 14.75
collars 15" Dia. of screw 17" 9" Pitch of Screw 16" 6" No. of Blades 4 State whether moveable No Total surface 100 sq ft.
No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 See Section sheet No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4-3 1/2" In Holds, &c. 8-3 1/2", 2-4 1/2", 1-3" 6-2 1/2"

No. of Bilge Injections 1 sizes 13" Connected to condenser, or to circulating pump Pumps a separate Donkey Suction fitted in Engine room & size 4-3 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 suction 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 Fire hold Suctions How are they protected Iron 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
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

BOILERS, &c.—(Letter for record 3) Manufacturers of Steel D. Calville & Sons L^d
Total Heating Surface of Boilers 7668 sq ft Forced Draft fitted Yes No. and Description of Boilers 3 Simple Tub Cylinders
Working Pressure 180 lbs sq Test by hydraulic pressure to 360 lbs sq Date of test 24-9-19 No. of Certificate 554
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 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 14" dia. of boilers 15'-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. seams Lap Joints
long. seams Butt Joints Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 9 1/2" Top of plates or width of butt straps 19 1/2"
Per centages of strength of longitudinal joint rivets 88.1 plate 85.6 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"
Size of compensating ring Plate flanged, and Description of Furnaces in each boiler 3 Weight Material Steel Outside diameter 58 3/16"
Length of plain part top 5 bottom 8 Thickness of plates crown 3 1/2 bottom 3 1/4 Description of longitudinal joint Weld No. of strengthening rings 0
Working pressure of furnace by the rules 188 lbs Combustion chamber plates: Material Steel Thickness: Sides 2 3/32 Back 4/16 Top 2 3/32 Bottom 2 3/32
Pitch of stays to ditto: Sides 10 5/8 x 9 1/4 Back 10 5/8 x 8 3/4 Top 10 5/8 x 9 1/4 stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lbs
Material of stays Steel Area at smallest part 2.39-3.49 sq in supported by each stay 98 1/2 sq in Working pressure by rules 186 lbs End plates in steam space:
Material Steel Thickness 1 1/2" Pitch of stays 2 1/4 x 2 1/4 How are stays secured Nuts Working pressure by rules 180 lbs Material of stays Steel
Area at smallest part 8.29 sq in Area supported by each stay 4.59 sq in Working pressure by rules 187 lbs Material of Front plates at bottom Steel
Thickness 3/32 Material of Lower back plate Steel Thickness 2 7/32 Greatest pitch of stays 13 5/8 x 8 1/4 Working pressure of plate by rules 189 lbs
Diameter of tubes 2 1/4" Pitch of tubes 4 x 3 5/8 Material of tube plates Steel Thickness: Front 3 1/2 Back 3 Mean pitch of stays 12 x 7 3/4
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 (3 x 2) Length as per rule 35 7/8 Distance apart 10 5/8 Number and pitch of stays in each 3-9 1/4
Working pressure by rules 182 lbs Steam dome: description of joint to shell Yes % 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 Valves Pressure to which each is adjusted Is Easing Gear fitted

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

Is a Report also sent on the Hull of the ship

2m.118. T.

W 199 0123(112)

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

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

The foregoing is a correct description,

For HARLAND & WOLFF LTD.

F. Hebbelbeck

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *1918-17-19 Oct 16th Oct 1919*
During erection on board vessel --
Total No. of visits *49*

Is the approved plan of main boiler forwarded here with *No*

Dates of Examination of principal parts—Cylinders *17-18-19* Slides *1-18* Covers *1-18* Pistons *1-18* Rods *1-18*
Connecting rods *25-8-19* Crank shaft *23-8-19* Thrust shaft *23-8-19* Piston shaft *23-8-19* Screw shaft *3-5-19* Propeller *1-7-19*
Stern tube *1-7-19* Steam pipes tested *18-1-19* Engines and boiler seatings *1-7-19* Engines holding down bolts *15-9-19*
Completion of pumping arrangements *6-10-19* Boilers fixed *25-9-19* Engines tried under steam *9-10-19*
Completion of fitting sea connections *8-7-19* Stern tube *21-9-19* Screw shaft and propeller *21-9-19*
Main boiler safety valves adjusted *6-10-19* Thickness of adjusting washers *6-11-19*
Material of Crank shaft *1-1-19* Identification Mark on Do. *13-8-19* Material of Thrust shaft *do* Identification Mark on Do. *do*
Material of Tunnel shafts *do* Identification Marks on Do. *do* Material of Screw shafts *do* Identification Marks on Do. *do*
Material of Steam Pipes *11-1-19* Test pressure *540 lbs*
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 *New Texas*

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. The materials and the workmanship are of good description, and on trial in Belfast Lough, the machinery worked satisfactorily. In our opinion, it is eligible for record + L.M.C. 10-19 with notation "Forced Draft + Electric Light"

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10-19. F.D.

Percentage *See*
The amount of Entry Fee ... £ *3*
Special ... £ *45*
Donkey Boiler Fee ... £ *10-19*
Travelling Expenses (if any) ... £ *36*
Charitable ...

When applied for, 18-10-19
When received, 25-10-19

R. F. Reeniff

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *ENL00T24-10-19*
Assigned *+ Lmb 1019*

Rpt. 9a.

Port of *Belfast* Continuation of Report No. *8224* dated *17-10-19* on the

S.S. New Toronto
Auxiliary Pumps

Feed *9 1/2" x 7" x 18"*
General *9 1/2" x 7" x 18"*
Ballast *10 1/2" x 14" x 24"*
Fresh Water *3" x 3" x 4"*

Principal items of Spare Gear

2 Connecting rods top end bolts & nuts
2 - - - - - Bottom
2 Main bearing bolts & nuts
6 Shaft coupling bolts
2 Feed pump valves
2 Belts
3 Main feed check valves
3 Donkey - - - - -
4 Spindles fan - - - - -
1 Feed pump escape valve spring
50 Bolts & nuts
1 C.I. Solid propeller
12 Condenser tubes
50 - - - - - ferrules
6 psi pump valves
1 Spare Fan engine
1 L.P. slide valve spindle
1 Valve cover & spindle main boiler stop valve
1 - - - - - fur

R. F. Reeniff