

# REPORT ON MACHINERY.

No. 7904

Received at London Office

WED. 23 JAN. 1918

Report 21<sup>st</sup> Jan 1918 When handed in at Local Office 19 Port of Belfast

Survey held at Belfast Date, First Survey 27 Sep 1913 Last Survey 12 Jan 1918

Trip I.S.S. Melita (Number of Visits 137) Gross 13967 Tons Net 8526

By whom built Barclay Curlew & Co Ltd When built 1917

By whom made Harland & Wolff Ltd when made

By whom made when made

Horse Power 1731 Owners Canadian Pacific Railway Port belonging to London

Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ES, & Co. — Description of Engine Triple Expansion & one L.P. Turbine No. of Cylinders 8 No. of Cranks 8

Cylinders 26 1/2 - 41 1/2 - 47 - 47 Length of Stroke 51 Revs. per minute 84 Dia. of Screw shaft 15.0 Material of Steel

as per rule 15.0 as fitted 15.75 screw shaft

Is the after end of the liner made water tight Yes

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

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two

fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5'-9"

as per rule 14.0 Dia. of Crank shaft journals 14.75 as per rule 14.75 as fitted 15.75 Dia. of Crank pin 16 Size of Crank webs 29 1/2 x 11 1/2 Dia. of thrust shaft under

as fitted 5 1/2 Dia. of screw 17'-0" Pitch of Screw 20'-6" No. of Blades 3 State whether moveable Yes Total surface 78 sq ft.

ed pumps } Diameter of ditto None on Main Engine Stroke Can one be overhauled while the other is at work

lge pumps } Diameter of ditto Stroke Can one be overhauled while the other is at work

Key Engines See separate sheet No. and size of Suctions connected to both Bilge and Donkey pumps

Room 9-3 1/2 - 2-3 - 2-2 - Emergency 2-8 In Holds, &c. 12-3 1/2 - Emergency 9-3 1/2 - 7-6

Injection 2 sizes 13 Connected to condenser, or to circulating pump Pumps a separate Donkey Suction fitted in Engine room & size 3-4 1/2

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

connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

red 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

ch 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

s are carried through the bunkers None How are they protected Yes

ipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

lge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

examination of completion of fitting of Sea Connections 13-5-17 of Stern Tube 13-5-17 Screw shaft and Propeller 13-5-17

ew Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

S, & Co. — (Letter for record S) Manufacturers of Steel W. Colville & Sons Ltd

ting Surface of Boilers 24730 sq ft forced Draft fitted Yes No. and Description of Boilers 5 - Double End Cylind

Pressure 215 lbs Tested by hydraulic pressure to 430 lbs Date of test 15-11-16 No. of Certificate 498

boiler be worked separately Yes Area of fire grate in each boiler 118 sq ft No. and Description of Safety Valves to

3 - Direct Spring Area of each valve 2'56 sq ft Pressure to which they are adjusted 215 lbs Are they fitted with easing gear Yes

stance between boilers or uptakes and bunkers or woodwork Run 28 Mean dia. of boilers 15'-3" Length 20'-0" Material of shell plates Steel

139 Range of tensile strength 29-32.8 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap & J.

Butt Diameter of rivet holes in long. seams 1 3/8 Pitch of rivets 10 1/2 Top of plates or width of butt straps 23 1/2

es of strength of longitudinal joint rivets 89.4 Working pressure of shell by rules 248 lbs Size of manhole in shell 16" x 12"

compensating ring McNeil No. and Description of Furnaces in each boiler 6 - Morrison Material Steel Outside diameter 47 1/2

plain part top Yes Thickness of plates crown 3 1/4 Description of longitudinal joint Weld No. of strengthening rings 6

bottom Yes Thickness of plates bottom 3 1/4 Description of longitudinal joint Weld No. of strengthening rings 6

pressure of furnace by the rules 237 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/32 Back 1/16 Top 3/32 Bottom 1/16

ays to ditto: Sides 8 x 7 1/2 Back 8 x 7 1/2 Top 8 x 7 1/2 If stays are fitted with nuts or riveted heads Nuts inside Working pressure by rules 256 lbs

of stays Steel Diameter at smallest part 1 1/4 x 2 1/4 supported by each stay 5820 Working pressure by rules 272 lbs and plates in steam space Yes

Steel Thickness 1/8 Pitch of stays 18 x 15 1/2 How are stays secured Welded into plates Working pressure by rules 215 lbs Material of stays Steel

at smallest part 7'06 supported by each stay 274 1/2 Working pressure by rules 269 lbs Material of Front plates at bottom Steel

1/2 Material of Lower back plate Yes Thickness Yes Greatest pitch of stays Yes Working pressure of plate by rules Yes

of tubes 2 1/2 Pitch of tubes 3 1/2 x 3 1/2 Material of tube plates Steel Thickness: Front 1/16 Back 1/16 Mean pitch of stays 7 1/2 x 7 1/2

ross wide water spaces 13 1/2 Working pressures by rules 315 lbs with 5 Double Orders to Chamber tops: Material Iron Depth and

of girder at centre 9 x (3 x 2) Length as per rule 52 3/8 Distance apart 8 Number and pitch of stays in each 6-7 1/4

pressure by rules 324 lbs Superheater or Steam chest; how connected to boiler Yes Can the superheater be shut off and the boiler worked

✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet

✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness

ned with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed

g pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

WS13-0172



*Manufacturers of Steel*

None

*SPARE GEAR.* State the articles supplied:—

See separate sheet

For Halstead & Hoff Ltd.

*Manufacturer.*

1913: - Sep<sup>r</sup> 22-26 Nov<sup>r</sup> 27 up till 12<sup>th</sup> Jan<sup>y</sup> 1918

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 22-9-13 Slides 8 Covers 8 Pistons 8 Rods 8  
Connecting rods 11-7-17 Crank shaft 1-5-14 Thrust shaft 8 Tunnel shafts 8 Screw shaft 28-7-17 Propeller 8  
Stern tube 20-2-17 Steam pipes tested 22-9-17 Engine and boiler seatings 10-9-17 Engines holding down bolts 10  
Completion of pumping arrangements 30-11-17 Boilers fixed 10-9-17 Engines tried under steam 22-11-17  
Main boiler safety valves adjusted 22-11-17 Thickness of adjusting washers 8-15-17  
Material of Crank shafts 9 Steel Identification Mark on Do. 44025 Material of Thrust shaft 40 Identification Mark on Do. 40  
Material of Tunnel shafts 40 Identification Marks on Do. 28-7-17 Material of Screw shafts 40 Identification Marks on Do. 40  
Material of Steam Pipes W. Iron ✓ 3-7-16 3.440 Test pressure 650 lbs sq. in. ✓

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

The machinery of this vessel has been constructed under my  
 supervision, and in accordance with the Rules.

The Workmanship and the materials are of good description throughout, and on trial under steam in Belfast Lough machinery worked satisfactorily.

In my opinion it is eligible for record + L.M.C. 1-  
with notation "Forced Air" - Electric Light & Refrigerating Mach

It is submitted that  
this vessel is eligible for

THE RECORD. + LMC 1.18. F.D

T. 8 Cy. (2)  $26\frac{1}{2}$ " (2)  $41\frac{1}{2}$ " & (4)  $47"-51"$

5 DB. 30cf, GS 590, HS 24730

1. L.P. Turbine. 215  $\frac{1}{2}$  (S)

The amount of Entry Fee	.. £	3	:	-	:	When applied for,
Special	.. .. . £	08	:	5	:	21-1-1918
Donkey Boiler Fee	.. .. . £		:		:	When received,
Travelling Expenses (if any)	£		:		:	16-2-1918

R. F. T. Beveridge  
Engineer Surveyor to Lloyd's Register of British & Foreign

## Committee's Minute

FRI. - 8 FEB. 1918

*Assigned*

+ L. M. G. 1.18

2. D.

MACHINERY CERTIFICATE  
WRITTEN.

Lloyd's Register  
Foundation