

REPORT ON MACHINERY

No. 7904

WED. 23 JAN. 1913

Report made at 21st Jan 1913 When handed in at Local Office Port of Belfast
 Survey held at Belfast Date, First Survey 22 Feb 1913 Last Survey 12 Jan 1918
 on the S.S. "Melita" (Number of Visits 137)
 Description G.I. Vapour Built at Glasgow By whom built Barclay Curle & Co when built 1918
 Length made at Belfast By whom made Harland & Wolff Ltd when made -
 made at - By whom made - when made -
 length of joint 10 Horse Power 3200 Owners Canadian Pacific Railway when built 1918
 Dia. of stays 3200 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

Stayed by VE ENGINES, & Co. Description of Engines Low Pressure Turbine No. of Turbines 1
 of Rotor Shaft Journals, H.P. 19 1/2 with 10 holes Diameter of Pinion Shaft 10.0
 of Journals 10.0 Distance between Centres of Bearings 10.0 Diameter of Pitch Circle 10.0
 of Wheel Shaft 10.0 Distance between Centres of Bearings 10.0 Diameter of Pitch Circle of Wheel 10.0
 Diameter of Thrust Shaft under Collars 10.0 Diameter of Tunnel Shaft 10.0
 Diameter of same 10.0 as per rule 10.0 Diameter of Propeller 10.0 Pitch of Propeller 8.0
 State whether Moveable No Total Surface 42 sq ft Diameter of Rotor Drum, H.P. 9.0 L.P. 9.0
 at Bottom of Groove, H.P. 1.0 L.P. 1.0 Astern 1.0 Revs. per Minute at Full Power, Turbine 220 Propeller 220

H.P.			L.P.			ASTERN.		
HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
			5 1/2	10'-0"	10			
			6 1/2	10'-3 1/4"	9			
			8 1/2	10'-7 1/4"	8			
			11 1/2	11'-0 1/2"	8			
			11 1/2	11'-0 1/2"	7			
			11 1/2	11'-0 1/2"	6			

size of Feed pumps
 size of Bilge pumps
 size of Bilge suction in Engine Room

In Holds, &c.
 Connected to condenser, or to circulating pump
 Is a separate Donkey Suction fitted in Engine Room & size
 Are the roses in Engine room always accessible
 Are they Valves or Cocks
 Are the Discharge Pipes above or below the deep water line
 Are the Blow Off Cocks fitted with a spigot and brass covering plate
 How are they protected
 Are the Discharge Pipes accessible at all times
 Are the Blow Off Cocks fitted with a spigot and brass covering plate
 How are they protected

RS, & Co. (Letter for record) Manufacturers of Steel
 Is Forced Draft fitted
 No. and Description of Boilers
 Tested by hydraulic pressure to
 Date of test
 No. of Certificate
 Area of fire grate in each boiler
 No. and Description of Safety Valves to
 Are they fitted with casing gear
 Area of each valve
 Pressure to which they are adjusted
 Distance between boilers or uptakes and bunkers or woodwork
 Mean dia. of boilers
 Length
 Material of shell plates
 Range of tensile strength
 Are the shell plates welded or flanged
 Descrip. of riveting: cir. seams
 Diameter of rivet holes in long. seams
 Pitch of rivets
 Lap of plates or width of butt straps
 Working pressure of shell by rules
 Size of manhole in shell
 No. and Description of Furnaces in each Boiler
 Material
 Outside diameter
 Thickness of plates
 Description of longitudinal joint
 No. of strengthening rings
 Combustion chamber plates: Material
 Thickness: Sides
 Back
 Top
 Bottom
 If stays are fitted with nuts or riveted heads
 Working pressure by rules
 End plates in steam space
 Diameter at smallest part
 Area supported by each stay
 Working pressure by rules
 Material of stays
 Thickness
 Pitch of stays
 How are stays secured
 Working pressure by rules
 Material of Front plates at bottom
 Working pressure of plate by rules
 Material of Lower back plate
 Thickness
 Greatest pitch of stays
 Working pressure of plate by rules
 Material of tube plates
 Thickness: Front
 Back
 Mean pitch of stays
 Working pressures by rules
 Girders to Chamber tops: Material
 Depth and
 Length as per rule
 Distance apart
 Number and pitch of stays in each
 Steam dome: description of joint to shell
 % of strength of joint
 Diameter
 Material
 Description of longitudinal joint
 Diameter of rivet holes
 Pitch of rivets
 Crown plates: Thickness
 How stayed

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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?

SPARE GEAR. State the articles supplied:— *See other sheet* If so, is a report now forwarded? _____

The foregoing is a correct description.

See other sheet

Manufacturer.

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

See other sheet

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Casing *11-7-17* Rotors *11-7-17* " donkey " " " " Blading *23-5-17* Gearing *✓*

Rotor shaft *5-3-17* Thrust shaft *✓* Tunnel shafts *✓* Screw shaft *✓* Propeller *✓*

Stern tube *✓* Steam pipes tested *See other sheet* Engines and boiler fittings *✓* Engines holding down bolts *✓*

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

Main boiler safety valves adjusted *✓* Thickness of adjusting washers *✓*

Material and tensile strength of Rotor shaft *P.M. 30.0 Tens. 30.0* Identification Mark on Do. *28-7-17*

Material and tensile strength of Pinion shaft *✓* Identification Mark on Do. *✓*

Material of Wheel shaft *✓* Identification Mark on Do. *✓*

Material of Tunnel shafts *✓* Identification Marks on Do. *See other sheet* Material of Thrust shaft *✓* Identification Mark on Do. *✓*

Material of Steam Pipes *✓* Identification Marks on Do. *✓* Material of Screw shafts *✓* Identification Marks on Do. *✓*

Is an installation fitted for burning oil fuel *No* Test pressure *✓*

Have the requirements of Section 49 of the Rules been complied with *✓* Is the flash point of the oil to be used over 150°F. *✓*

Is this machinery a duplicate of a previous case *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, etc.) *See other sheet*

Belfast Continuation of Report No. **7904** dated *21st Jan - 18* on the *S.S. Melita*

List of Pumps.
 Main Circulating pumps 19" pipe
 Equaliser 14" x 24" x 18"
 Aux Main Feed 20" x 14" x 26"
 Hotwell 9" x 9" x 21"
 Ballast 11" x 12 1/2" x 24"
 Bilge 9" x 10" x 21"
 Sanitary 10 1/2" x 12" x 21"
 Fresh Water 6" x 6" x 15"
 Aux Feed 9 1/2" x 7" x 18"
 - Circulating 8" pipe
 - Air 12" x 18" x 10"
 General Service 12" x 8" x 12"
 Emergency Feed 8" x 6" x 18"
 Forced Lubrication 6" x 6" x 12"

Spare Gear
 2 M. Bronze Propeller blades + studs
 2 pair bottom end braces
 4 - top -
 1 H.P. valve spindle
 1 L.P. -
 3 sets piston rings (H.P. M.P. + L.P.)
 3 - - - value -
 2 percent Condenser tubes ferrules + packing
 1/2 set fire bars
 2 percent boiler tubes
 1 Safety valve spring for each boiler
 1 escape - each size
 Sets patent packing for all piston + valve rods
 1 Impellers + spindle for Circulating pumps
 Sets Spare gear for all auxiliary engines + pumps
L.P. Turbine Gear
 2 sets gland rings (4 per set)
 1 Escape valve spring
 5 segments for each of 1 1/2, 2, 3, 4 expansion of rotor
 4 - - - 5 1/2 x 6 1/2 -
 6 - - - 1 1/2, 2, 3 - Cylinder
 5 - - - 4 1/2, 5 1/2 -
 4 - - - 6 -
 2 Male + 2 female blade stops each section
 5% drumming strip + 5% gland strip
 1 Complete set of sight glasses for oil drains (3 glasses)
 2 sets adjusting block liners
 3 Thermom. for oil drains; 2 glasses for sight feed
 and all gear to Lloyd's Rules (1914)
 - extra

Certificates (if required) to be sent to _____

The amount of Entry Fee ... £
 Special ... £
 Donkey Boiler Fee ... £
 Travelling Expenses (if any) ... £

When applied for, 19
 When received, 19

P. J. Pennington
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI.-8 FEB. 1918**

Assigned

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