

REPORT ON MACHINERY.

No. 183/10
-4 MAR 1925

pt. 4a.

Date of writing Report 14. 11. 1924 When handed in at Local Office 14. 11. 1924 Port of Greenock
No. in Survey held at Port Glasgow. Date, First Survey 14th October, 1924. Last Survey 10th November, 1924.
Reg. Book. on the SS "TONGARIRO".
Master Built at Pt Glasgow. By whom built Lithgows Ltd (No 323) When built 1919.
Engines made at Glasgow. By whom made D. Rowan & Co Ltd when made
Boilers made at By whom made when made
Registered Horse Power Owners Port belonging to
Shaft Horse Power at Full Power Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted

TURBINE ENGINES, &c.—Description of Engines No. of Turbines
Diameter of Rotor Shaft Journals, H.P. L.P. Diameter of Pinion Shaft
Diameter of Journals Distance between Centres of Bearings Diameter of Pitch Circle
Diameter of Wheel Shaft Distance between Centres of Bearings Diameter of Pitch Circle of Wheel
Width of Face Diameter of Thrust Shaft under Collars Diameter of Tunnel Shaft as per rule as fitted
No. of Screw Shafts Diameter of same as per rule as fitted Diameter of Propeller Pitch of Propeller
No. of Blades State whether Moveable Total Surface Diameter of Rotor Drum, H.P. L.P. Astern
Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine Propeller

PARTICULARS OF BLADING.

	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.
EXPANSION									
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and size of Feed pumps
and size of Bilge pumps
and size of Bilge suction in Engine Room
In Holds, &c.
of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine Room & size
all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible
all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks both.
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
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.
at pipes are carried through the bunkers How are they protected
all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges
the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ILERS, &c.—(Letter for record) Manufacturers of Steel
Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
In each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
th boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
Lap of plates or width of butt straps
Percentage of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
plates
Size of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
Length of plain part top crown bottom Thickness of plates Description of longitudinal joint No. of strengthening rings
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter
Thickness of shell plates Material Description of longitudinal joint Diameter 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 Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

IS A DONKEY BOILER FITTED? _____ If so, is a report now forwarded? _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - { (1924.) October 14. 21. 27. 30. November 6. 10.
{ During erection on board vessel - - - {
Total No. of visits 6.

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Casings Rotors Blading Gearing

Rotor shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings 14-10-24 Engines holding down bolts

Completion of pumping arrangements Boilers fired Engines tried under steam

Main boiler safety valves adjusted Thickness of adjusting washers

Material and tensile strength of Rotor shaft Identification Mark on Do.

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

Material of Wheel shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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 a duplicate of a previous case If so, state name of vessel

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

The Stern tube Tail shaft and Propeller securely fitted in place.

Sea connections completed.

All heating coils in Oil fuel tanks tested to 200 lbs^a and found tight.

The vessel is leaving for Glasgow, where the Engines and Boilers will be placed on board, and the survey completed.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ : : 19.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 19.

J. A. Doney
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 18-MAR 1925

Assigned See Gb. Rpt. No. 44399



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