

REPORT ON MACHINERY.

No. 42246

Received at London Office

Date of writing Report 16. 10. 1922 When handed in at Local Office 16. 10. 1922 Port of Glasgow
 in Survey held at Glasgow Date, First Survey 8th Oct 1920 Last Survey 12th Oct 1922
 eg. Book. on the SS "Tjibesar" (Number of Visits 112)
 Gross Tons 10820
 Net Tons 6672
 Built at Glasgow By whom built Lithgows & Co (No 742) When built 1922
 Engines made at Glasgow By whom made S. Rowan & Co Ltd (No 758) when made 1922
 Meters made at Glasgow By whom made S. Rowan & Co Ltd (No 758) when made 1922
 Registered Horse Power 1140 Owners Java-China-Japan-Lign. Port belonging to Amsterdam
 Shaft Horse Power at Full Power 5000 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

TURBINE ENGINES, &c.—Description of Engines Double Reduction Geared Turbine No. of Turbines 2 (H.P. & L.P.)
 Diameter of Rotor Shaft Journals, H.P. 4 1/2 L.P. 6 1/2 Diameter of Pinion Shaft 1 Red H.P. 7 1/8 L.P. 11 1/2 2 Red H.P. & L.P. 19 1/2
 Diameter of Journals 1 Red 6 1/2 2 Red 13 Distance between Centres of Bearings 1 Red 37 2 Red 10 Diameter of Pitch Circle H.P. 8 3/32 L.P. 13 1/16 2 Red H.P. & L.P. 20 7/8
 Diameter of Wheel Shaft 17 Distance between Centres of Bearings 6 7/8 Diameter of Pitch Circle of Wheel 1 Red 65 1/4 2 Red 100 2/26
 Diameter of Face 1 Red 2 @ 20 2 Red 2 @ 20 Diameter of Thrust Shaft under Collars 16 1/2 (Michell)
 Diameter of Tunnel Shaft as per rule 15 3/32 as fitted 15 5/8
 Diameter of Propeller 19 6 Pitch of Propeller 16 6
 Diameter of Rotor Drum, H.P. 17 L.P. 3 1/2 Astern 3 2
 Revs. per Minute at Full Power, Turbine H.P. 3360 Propeller 89
 L.P. 2080

PARTICULARS OF BLADING. Parsons.

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 3 WEIRS 136 x 10 x 24
 and size of Bilge pumps 1 at 6 x 6 1/2 2 at 8 x 8 1/2 Ballast 9 x 10 x 12 (Lubricating Pump (2) 10 x 9 x 18)
 and size of Bilge suction in Engine Room 2 at 8 1/2 x 4 1/2 Stokhold 4 3 1/2
 In Holds, &c. 2 3 1/2 in holds. Gross bunker 2 3 1/2 Deep Tank

of Bilge Injections one sizes 11 Converted to circulating pump Pump Is a separate Donkey Suction fitted in Engine Room & size 4
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room 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
 Are all pipes carried through the bunks No How are they protected Yes
 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

MILLERS, &c.—(Letter for record 5) Manufacturers of Steel J. Dunlop & Co. Glasgow Ship of Surtans Gunnar Rodmelle
 Total Heating Surface of Boilers 15336 Is Forced Draft fitted Yes No. and Description of Boilers Six Single ended multitubular
 Working Pressure 220 Tested by hydraulic pressure to 330 lbs Date of test 16th 11-2-22 No. of Certificate 16010-16011
 Are each boiler be worked separately Yes Area of fire grate in each boiler 57 sq ft No. and Description of Safety Valves to
 Are boiler Two Spring loaded Area of each valve 9.62 sq ft Pressure to which they are adjusted 225 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunks or woodwork 18 Mean dia. of boilers 15 3/8 Length 12 0 Material of shell plates Yes
 Thickness 1 1/16 Range of tensile strength 29/33 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DBS & Tube LPP
 7. seams TR. DBS Diameter of rivet holes in long. seams 1 9/16 Pitch of rivets 10 1/2 width of butt straps 23
 Percentages of strength of longitudinal joint rivets 86.7 plates 85.1 Working pressure of shell by rules 243 Size of manhole in shell 16 x 12

of compensating ring 38 x 34 x 1 1/2 No. and Description of Furnaces in each Boiler 3 Corrugated Material S Outside diameter 3 11 1/2
 Length of plain part top 257 crown 4 3/8 Description of longitudinal joint Weld No. of strengthening rings 1
 bottom 257 bottom 4 3/8
 Working pressure of furnace by the rules 257 Combustion chamber plates: Material S Thickness: Sides 23 Back 23 Top 23 Bottom 1
 Pitch of stays to ditto: Sides 7 1/2 x 7 3/8 Back 8 x 7 3/8 If stays are fitted with nuts or riveted heads Riveted heads Working pressure by rules 240
 Material of stays S Diameter at smallest part 1 7/8 Area supported by each stay 65 sq in Working pressure by rules 222 End plates in steam space
 Material S Thickness 1 1/32 Pitch of stays 22 x 19 3/4 x How are stays secured BNTW bolts Working pressure by rules 220 Material of stays S
 Diameter at smallest part 4 6/20 Area supported by each stay 456 Working pressure by rules 220 Material of Front plates at bottom S
 Thickness 7/8 Material of Lower back plate S Thickness 7/8 Greatest pitch of stays 13 1/4 Working pressure of plate by rules 221
 Diameter of tubes 23/4 Pitch of tubes 4 x 3 7/8 Material of tube plates S Thickness: Front 7/8 Back 13/16 Mean pitch of stays 9 7/8
 Pitch across wide water spaces 13 3/4 Working pressures by rules 260 Girders to Chamber tops: Material S Depth and
 Thickness of girder at centre 9 1/2 x 13/4 Length as per rule 37 7/16 Distance apart 7 1/2 Number and pitch of stays in each 4 @ 7 3/8
 Working pressure by rules 221 Steam dome: description of joint to shell 1/10 of strength of joint Diameter
 Thickness of shell plates Material S Description of longitudinal joint Diameter of rivet holes Pitch of rivets
 Working pressure of shell by rules Crown plates: Thickness How stayed

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Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Is Easing Gear fitted

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Sets of bolts for each one of roller bearing. ditto for main gear wheel bearing. ditto for Pinion bearing. 1 Set of Coupling bolts for each one used. $\frac{1}{20}$ " of total D^o of bolts & nuts for each gear case joint. $\frac{1}{20}$ " total D^o of each Turbine Coupling joint. 2 Thermometers for Oil Co. System. 1 Set of Bearing rollers for our Hand wheel shaft. ditto for roller ditto for Pinion shaft. $\frac{1}{2}$ Set of Packing Ring for each gland of Water shaft. $\frac{1}{2}$ Set of Springs. Sufficient Pads for one face of each Thrust on 1 Set of Pads of Mch. for our Turbine fitted. 1 Set of Pin for adjusting Block of differential. Anchormen. 1 Set of Bridge Pump. Taken also out for Lubricating Oil Pump. 1 Punch. Rod for Lubricating Oil Pump. 1 Set of Valve Spring for each one fitted. A quantity of Wood & 1 Set of Studs & nuts. Bars & plates of Non-Steel

Manufacturer

Is the approved plan of main boiler forwarded herewith

7. 11. 2019

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