

REPORT ON MACHINERY.

No. 42040.

WED. JUL. 25 1922

Received at London Office

Date of writing Report 3-7-22 When handed in at Local Office 3-7-22 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 16th Sep 1920 Last Survey 21st June 1922
 Reg. Book. 38464 on the Tonnage Screw Steamer "Mulheta" (Number of Visits 8)
 Tons Gross 9100 Net 5521
 Master Built at Glasgow By whom built A. Stephen & Sons (N° 496) When built 1922
 Engines made at Glasgow By whom made A. Stephen & Sons (N° 496) when made 1922
 Boilers made at Glasgow By whom made A. Stephen & Sons (N° 496) when made 1922
 Registered Horse Power 1068 Owners British India Steam Nav Co Ltd Port belonging to Glasgow
 Rule Horse Power Shaft Horse Power at Full Power 4100 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

URBINE ENGINES, &c.—Description of Engines Double Reduction Geared Turbines No. of Turbines 6
 Diameter of Rotor Shaft Journals, H.P. 3" I.P. 3½" L.P. 5½" Diameter of Pinion Shaft 1st Reduction 4" 2nd Reduction 13½"
 Diameter of Journals 1st Red 4" 2nd Red 9" Distance between Centres of Bearings 1st Red 2-1½" 2nd Red 5-13¼" Diameter of Pitch Circle 1st Red H.P. 4 I.P. 6.816 L.P. 8.734 2nd Red 15.124"
 Diameter of Wheel Shaft 13" Distance between Centres of Bearings 5'-8¾" Diameter of Pitch Circle of Wheel 1st Red 57.727 2nd Red 79.88"
 Width of Face 1st Red 2½" 2nd Red 2" @ 15½" Diameter of Thrust Shaft under Collars 12¾" Diameter of Tunnel Shaft as per rule approved as fitted 11¾"
 No. of Screw Shafts Two (continuous) Diameter of same as per rule approved as fitted 13½" Diameter of Propeller 16'-0" Pitch of Propeller 18'-6"
 No. of Blades 3 State whether Moveable Yes Total Surface 72.74 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 H.P. 4 I.P. 3700 Propeller 83
 L.P. 2900

ARTICULARS 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.
1ST EXPANSION									
2ND									
3RD									
4TH									
5TH									
6TH									
7TH									
8TH									

No. and size of Feed pumps Two (weirs) 10" x 13½" x 21"
 No. and size of Bilge pumps One 8" x 7" x 12"
 No. and size of Bilge suction in Engine Room 2@3½" Boiler Room 2@3½" Tryne Room Cofferdam 1@3, Thrust recess 2@3½"
 In Holds, &c. Cross-bunker 2@3½"
 Holders No 1-2-3-4-5-6-2 each @3½" Tunnel 2@3½" Forward Cofferdam 1@3"
 No. of Bilge Injections 2 sizes 10" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine Room & size Yes 2@3½" 1@5½"

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 Below
 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 Suctions to forward holds How are they protected Strong wood casing
 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 S) Manufacturers of Steel Steel Co of Scotland: Beaidmore: J. Spencer & Sons
 Total Heating Surface of Boilers 157124 Is Forced Draft fitted Yes No. and Description of Boilers 5 Single ended multitubular
 Working Pressure 215 Tested by hydraulic pressure to 373 Date of test 6-10-20-27/10/21: 9/11/21 No. of Certificate 15914, 15924, 15925, 15932, 15946
 Can each boiler be worked separately Yes Area of fire grate in each boiler 75 ft No. and Description of Safety Valves to each boiler Two spring loaded Area of each valve 11.78 Pressure to which they are adjusted 220 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers 31" Mean dia. of boilers 16'-6" Length 12'-0" Material of shell plates S
 Thickness 15/8" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D.R.
 long. seams T.R. D.R. Straps Diameter of rivet holes in long. seams 15/8" Pitch of rivets 11¾" Top of plates width of butt straps 24"
 Per centages of strength of longitudinal joint rivets 83.4 Working pressure of shell by rules 215 lbs Size of manhole in shell 20½" x 16½"
 plates 85.7
 Size of compensating ring 43 x 39 x 15/8 No. and Description of Furnaces in each Boiler 4 Corrugated Material S Outside diameter 45½"
 Length of plain part top Thickness of plates crown 5/8" Description of longitudinal joint Weld No. of strengthening rings None
 bottom Thickness of plates bottom 5/8"
 Working pressure of furnace by the rules 216 Combustion chamber plates: Material S Thickness: Sides 11/16" Back 3/4" CENTRE Top 11/16" Bottom 13/16"
 Pitch of stays to ditto: Sides 9x8" Back 9x8" WING 8½x8" WING 10x7 3/16 CENTRE stays are fitted with nuts or riveted heads Nuts Working pressure by rules 228
 Material of stays Diameter at smallest part 203 1/2 Area supported by each stay 84 9/72 Working pressure by rules 256 4/27 End plates in steam space
 Material Thickness 13/8" Pitch of stay 23 20 x 16 How are stays secured Nuts Working pressure by rules 229 Material of stays S
 Diameter at smallest part 169 7/8 Area supported by each stay 365 9/320 Working pressure by rules 215 4/222 Material of Front plates at bottom S
 Thickness 15/16" Material of Lower back plate S Thickness 29/32" Greatest pitch of stays 13¾ x 10½" Working pressure of plate by rules 216
 Diameter of tubes 2¾" Pitch of tubes 4 x 3 7/8" Material of tube plates S Thickness: Front 13/8" 15/16" Back 13/16" Mean pitch of stays 7 7/8"
 Pitch across wide water spaces 13¾" Working pressures by rules 217 Girders to Chamber tops: Material S Depth and
 thickness of girder at centre Centre 9¾ x 2 WING 8 7/8 x 2 Length as per rule 34 7/16 Distance apart 10' 4 8½" Number and pitch of stays in each CENTRE 3 @ 7 3/16 WING 8"
 Working pressure by rules 218 Steam dome: description of joint to shell No % of strength of joint Diameter 2020
 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

