

REPORT ON MACHINERY

No. 8321
FRI. 11 NOV. 1921

Received at London Office

10 When handed in at Local Office 10 Port of Dundee

10 in Survey held at Dundee Date, First Survey 4:10:1921 Last Survey 8:11:1921
 10 in Book. the 630 on the S.S. "ARBROATH" (Number of Visits 8)

10 aster Built at Rostock By whom built Akt. Ges. "Neptun" Tons { Gross 1106
 10 engines made at Rostock By whom made Akt. Ges. "Neptun" Net 623
 10 10ilers made at Rostock By whom made Akt. Ges. "Neptun" When built 1909
 10 10istered Horse Power 182 Owners Dundee Perth & London Shipping Co. Ltd. Port belonging to Dundee
 10 m. Horse Power as per Section 28 182 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

GINES, &c.—Description of Engines

10 10. of Cylinders 14 1/4 24 1/6 46 8 46 8 Length of Stroke 31 1/2 Revs. per minute 9.31 No. of Cylinders 3 No. of Cranks 3
 10 10e screw shaft fitted with a continuous liner the whole length of the stern tube Yes Dia. of Screw shaft as per rule 9.94 Material of as fitted 10.3 screw shaft
 10 10e propeller boss Yes If the liner is in more than one length are the joints burned Yes Is the after end of the liner made water tight
 10 10etween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If the liner does not fit tightly at the part
 10 10ers are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 3'-6"
 10 10ia. of Tunnel shaft as per rule 8.84 Dia. of Crank shaft journals as per rule 9.31 Dia. of Crank pin 9 5/16 Size of Crank webs as fitted 8 1/16 Dia. of thrust shaft under
 10 10ars 9 3/8 Dia. of screw 12'-2" Pitch of Screw 14'-4" No. of Blades 4 State whether moveable Yes Total surface 46.84
 10 10. of Feed pumps 2 Diameter of ditto 22 Stroke Can one be overhauled while the other is at work Yes
 10 10. of Bilge pumps 2 Diameter of ditto 38 Stroke Can one be overhauled while the other is at work Yes
 10 10. of Donkey Engines 2 Sizes of Pumps 8 1/4 x 9 No. and size of Suctions connected to both Bilge and Donkey pumps
 10 10 Engine Room 3 2 2 3/4 In Holds, &c. F.P. 1 @ 2 3/8" V.A.C. 1 @ 2 3/8" Tunnel, well, 1 @ 2 3/8"
 10 10. of Bilge Injections 1 sizes 3 1/16 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2
 10 10e all the 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
 10 10e all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 10 10e 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 above
 10 10e 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
 10 10hat pipes are carried through the bunkers Howard Suctions How are they protected Strong wood casings
 10 10e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 10 10e the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 10 10e the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Main deck

ILERS, &c.—(Letter for record) 3337 Manufacturers of Steel

10 10otal Heating Surface of Boilers 1668.44 Is Forced Draft fitted No No. and Description of Boilers 2, S.E. Marine
 10 10orking Pressure 200 Tested by hydraulic pressure to 300 lbs. Date of test 1-11-1921 No. of Certificate 38
 10 10an each boiler be worked separately Yes Area of fire grate in each boiler 45.3 No. and Description of Safety Valves to
 10 10ch boiler 2, Spring loaded Area of each valve 5.94 Pressure to which they are adjusted 195 Are they fitted with easing gear Yes
 10 10allest distance between boilers or uptakes and bunkers or woodwork Yes Mean dia. of boilers 12'-1 3/4" Length 10'-2" Material of shell plates
 10 10ickness 1.06 Range of tensile strength Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams D.R.
 10 10ng. seams S.R. D.B.S. Diameter of rivet holes in long. seams 1.26 Pitch of rivets 13 1/2 Lap of plates or width of butt straps 14 1/8 252
 10 10er centages of strength of longitudinal joint 114.44 Combined % 95.1 Working pressure of shell by rules 199 Size of manhole in shell 16" x 12"
 10 10ize of compensating ring 1 1/16 x 8" No. and Description of Furnaces in each boiler 2, Harrison Material Outside diameter 49.2
 10 10ength of plain part top 9.21 Thickness of plates bottom 10 crown bottom 6.5 Description of longitudinal joint welded No. of strengthening rings Yes
 10 10orking pressure of furnace by the rules 194 Combustion chamber plates: Material Thickness: Sides .63 Back .63 Top .64 Bottom .49
 10 10itch of stays to ditto: Sides 4.48 x 4.84 Back 4.48 Top 8 x 4.8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 229 min.
 10 10aterial of stays Area at smallest part 1.5 Area supported by each stay 63.5 Working pressure by rules 194.4 End plates in steam space:
 10 10aterial Thickness .963 Pitch of stays 14.8 x 16 1/4 How are stays secured D.I. 9 WASHERS WITH ONE WASHER RIVETED. Working pressure by rules 204 Material of stays
 10 10rea at smallest part 5.42 Area supported by each stay 229 Working pressure by rules 245 Material of Front plates at bottom
 10 10ickness .905 Material of Lower back plate Thickness .865 Greatest pitch of stays 12.2 x 4.48 Working pressure of plate by rules 253
 10 10iameter of tubes 3 1/2 Pitch of tubes 4.53 Material of tube plates Thickness: Front .9 Back .845 Mean pitch of stays 9.06
 10 10itch across wide water spaces 14.14 Working pressures by rules 264 Girders to Chamber tops: Material Depth and
 10 10ickness of girder at centre 13 1/16 x 6 1/2 (2) Length as per rule 25.2 Distance apart 8.04 Number and pitch of stays in each Yes 8 x 4.84
 10 10orking pressure by rules 214 Steam dome: description of joint to shell % of strength of joint
 10 10iameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 10 10itch of rivets Working pressure of shell by rules Crown plates Thickness How stayed 2020

PERHEATER. Type Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Tested by Hydraulic Pressure to Is Easing Gear fitted

10 10ate of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 10 10iameter of Safety Valve Pressure to which each is adjusted

4910-1807M

