

REPORT ON BOILERS.

No. 40400

Received at London Office THU. SEP. 30 1920

of writing Report 24.9.1920 When handed in at Local Office 28.9.1920 Port of Glasgow
 Survey held at Glasgow Date, First Survey 3.6.19 Last Survey 14.9.1920
 Book. on the Single ended Boiler SS "MANIPUR" (Number of Visits 56) Gross 9242 Tons Net 5697
 Built at Pt Glasgow By whom built Lithgous & Co When built 1920
 Lines made at Manchester By whom made Metropolitan Vickers & Co When made 1920
 Boilers made at Glasgow By whom made do Rowan & Co Ltd (20713) When made 1920
 Registered Horse Power 1113 Owners J. & J. Brocklebank Ltd Port belonging to Liverpool

MULTITUBULAR BOILERS - MAIN, AUXILIARY OR DONKEY. - Manufacturers of Steel W. Beardmore & Co. Ltd Glasgow Scotland.

Single ended
 Total Heating Surface of Boilers 66804 Is forced draft fitted no No. and Description of Boilers 2 Single ended Working Pressure 200 Tested by hydraulic pressure to 350 Date of test 1-4-20
 Certificate 15213 Can each boiler be worked separately yes Area of fire grate in each boiler 70 SE No. and Description of valves to each boiler 2 Spring loaded Area of each valve 7.070 Pressure to which they are adjusted 205 If they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler
 Least distance between boilers or uptakes and bunkers or woodwork 1-6 Mean dia. of boilers 17-6 Length 12-0
 Material of shell plates Steel Thickness 7/16 29/64 Range of tensile strength 30634 tons Are the shell plates welded or flanged no
 Riveting: cir. seams do L long. seams TRDBS Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 1/2
 Size of manhole in shell 19 1/2 x 15 1/2 Size of compensating ring 3-0 1/2 x 2-8 1/2 Working pressure of shell by rules 200
 4 corrugated Material Steel Outside diameter 3-10 1/4 Length of plain part top - bottom - Thickness of plates crown 5 1/2 bottom 8
 No. of strengthening rings - Working pressure of furnace by the rules 217 Combustion chamber Material Steel Thickness: Sides 23/32 Back 21/32 Top 23/32 Bottom 7/8 Pitch of stays to ditto: Sides 9 1/2 x 9 1/2 Back 9 1/2 x 7 1/2 9 1/2 x 8
 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 200 Material of stays Iron Area at smallest part 2.07 Area supported by each stay 89 Working pressure by rules 202 End plates in steam space: Material Steel Thickness 1 1/2
 How are stays secured do 9 Working pressure by rules 200 Material of stays Steel Area at smallest part 7.06 supported by each stay 341 Working pressure by rules 210 Material of Front plates at bottom Steel Thickness 7/8 Material of back plate Steel Thickness 27/32 Greatest pitch of stays 13 3/8 Working pressure of plate by rules 201 Diameter of tubes 3
 Material of tube plates Steel Thickness: Front 1 Back 13/16 Mean pitch of stays 10 1/2 Pitch across wide spaces 13 3/8 Working pressures by rules 210 Girders to Chamber tops: Material Steel Depth and thickness of at centre 11 1/2 x 7 (2) Length as per rule 40 11/32 Distance apart 9 3/4 Number and pitch of Stays in each (3) 9 1/2
 Working pressure by rules 210 Steam dome: description of joint to shell none % of strength of joint
 Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Working pressure of shell by rules Crown plates Thickness How stayed

REHEATER. Type none Date of Approval of Plan Tested by Hydraulic Pressure to
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,
 David Langmuir & Co Ltd Manufacturer.
 Is the approved plan of boiler forwarded herewith yes
 Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Boilers have been built under special Survey material and workmanship are good. The boilers have been well fitted to the vessel

Survey Fee ... £ See Mach. Rpt. When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

Committee's Minute GLASGOW 29 SEP 1920

James Easthope M.S. General 2020
 Engineer Surveyor to Lloyd's Register of Shipping.

See attached Mach. Report.

