

Rpt. 5a.

REPORT ON BOILERS.

No. 27819
THU. MAR. 27 1921

Received at London Office

Date of writing Report 1921 When handed in at Local Office 26 MAY 1920 Port of SUNDERLAND

No. in Survey held at SUNDERLAND Date, First Survey 12 Feb 20 Last Survey 191
 Reg. Book. on the Messrs G. Clark's 110 2 1/2 Boiler S. S. Port Laurie (Number of Visits) Gross Tons }
 Net Tons }
 Master Built at Lowcloft By whom built J. Chamberlain When built 1921
 Engines made at S Shields By whom made Messrs J. Gray No 607 When made 1920
 Boilers made at Sunderland By whom made Messrs G. Clark Ltd No. 110 2 1/2 When made 1920
 Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Spinner & Sons

(Letter for record 9) Total Heating Surface of Boilers 1844 sq ft Is forced draft fitted no No. and Description of Boilers on Single End Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 14.5.20

No. of Certificate 3686 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to each boiler Two spring loaded Area of each valve 5.9 sq ft Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers or uptakes and bunkers or woodwork 1 ft Mean dia. of boilers 14.0 Length 10-6

Material of shell plates S Thickness 1/8 Range of tensile strength 28-32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Lap Riv. long. seams d 1/2 riv. Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 8 3/8

Top of plates or width of butt straps 18" Per centages of strength of longitudinal joint rivets 87 plate 86 Working pressure of shell by rules 182

Size of manhole in shell 12 x 16 Size of compensating ring 8 x 1 3/16 No. and Description of Furnaces in each boiler 3 Dighton Material S Outside diameter 3-7 Length of plain part top - bottom - Thickness of plates crown 3 3/8 bottom 3 1/4

Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 182 Combustion chamber plates: Material S Thickness: Sides 23/32 Back 1/16 Top 23/32 Bottom 23/32 Pitch of stays to ditto: Sides 9 1/4 x 9 1/2 Back 9 3/4 x 8 7/8

Top 9 x 9 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 188 Material of stays S Area at smallest part 2.03 sq ft Area supported by each stay 88 sq ft Working pressure by rules 207 End plates in steam space: Material S Thickness 1 3/32

Pitch of stays 22 + 17 3/4 How are stays secured d n o w Working pressure by rules 184 Material of stays S Area at smallest part 6.49 sq ft Area supported by each stay 370 sq ft Working pressure by rules 182 Material of Front plates at bottom S Thickness 13/16 Material of Lower back plate S Thickness 15/16 Greatest pitch of stays 14 3/4 Working pressure of plate by rules 194 Diameter of tubes 3 1/4

Pitch of tubes 4 1/2 + 4 3/8 Material of tube plates S Thickness: Front 13/16 Back 3/4 Mean pitch of stays 11 1/4 x 8 3/4 Pitch across wide water spaces 14 1/4 d n o w Working pressures by rules 262 Girders to Chamber tops: Material S Depth and thickness of girder at centre 7 3/8 + 1 3/4 Length as per rule 30" Distance apart 9" Number and pitch of Stays in each 2, 9 1/4

Working pressure by rules 181 Steam dome: description of joint to shell % of strength of joint Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

UPERHEATER. 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

The foregoing is a correct description,
 FOR GEORGE CLARK LIMITED
 W. S. J. Manufacturer.

Dates of Survey (During progress of work in shops - - - 1921 Feb 12, 19, 20, 26, Mar 28, Apr 8, 14, 22, May 6, 14) Is the approved plan of boiler forwarded herewith Yes

CL while building (During erection on board vessel - - -) Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This Boiler has been built under special survey, the materials and workmanship are sound and good. It has been built to the order of Messrs G. J. Gray, S. Shields engine No 607

Survey Fee ... £ 6 : 3 : When applied for, 26 MAY 1920

Travelling Expenses (if any) £ : : When received, as per letter 191
 Con/Nov 18. 6. 20 L.P.

G. S. H. & Co. Surveyors
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute THU. MAR. 24 1921

Assigned