

REPORT ON BOILERS.

No. 11012.

FRI. DEC. 13. 1912

Received at London Office

Date of writing Report 10. 12. 1912. When handed in at Local Office 10. 12. 1912. Port of Aberdeen.

No. in Survey held at Aberdeen. Date, First Survey 24. 5. 12. Last Survey 5. 12. 1912.
 Reg. Book. 224. on the BOILER No. 12 fitted in S.S. Kathleen of Aberdeen. (Number of Visits 23.) Gross 364.
 Master S. J. King Built at Belfast. By whom built Workman Black & Co. When built 1884.
 Engines made at Glasgow. By whom made J. & J. Thomson when made 1884.
 Boiler made at Aberdeen. By whom made Hall Russell & Co. Ltd. when made 1912.
 Registered Horse Power 40. Owners W. G. Shipp & Co. Ltd. (Glasgow & London, Engd). Port belonging to Aberdeen.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel Stewarts & Lloyds & S. Colville & Sons Ltd.

(Letter for record (7)) Total Heating Surface of Boilers 1330 $\frac{1}{2}$ Is forced draft fitted No. No. and Description ofBoilers One, cyl., multi, single ended Working Pressure 90 $\frac{1}{2}$ Tested by hydraulic pressure to 240. Date of test 31. 8. 12.No. of Certificate 420 Can each boiler be worked separately Area of fire grate in each boiler 43.76 $\frac{1}{2}$ No. and Description ofsafety valves to each boiler 2: direct spring Area of each valve 9.62 $\frac{1}{2}$ Pressure to which they are adjusted 90 lbs.

Are they fitted with easing gear Yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork 2' 0" Inside Mean dia. of boilers 12' 4" Length 10' 0"

Material of shell plates S. Thickness $\frac{3}{4}$ " Range of tensile strength 28-32. Are the shell plates welded or flanged No.Descrip. of riveting: cir. seams d. 7-lap Long. seams dble straps Diameter of rivet holes in long. seams $\frac{1}{10}$ " Pitch of rivets $\frac{6}{4}$ " $\frac{3}{8}$ "Lap of plates or width of butt straps $11\frac{3}{4}$ " $\frac{1}{4}$ " $\frac{1}{4}$ " Per centages of strength of longitudinal joint rivets 84.3 Working pressure of shell byrules 123.3. Size of manhole in shell 16" x 12" Size of compensating ring 28" dia x $\frac{1}{4}$ " No. and Description of Furnaces in eachboiler S: plain Material S. Outside diameter 36 $\frac{1}{4}$ " Length of plain part top 89" Thickness of plates crown 5" bottom 8" bottom 8"

Description of longitudinal joint cold. No. of strengthening rings Working pressure of furnace by the rules 129.9 Combustion chamber

plates: Material S. Thickness: Sides 70" Back 70" Top 70" x 8" Bottom 70" Pitch of stays to ditto: Sides 9 $\frac{1}{2}$ x 8 $\frac{1}{2}$ Back 9 x 9"

Top 9 x 9" If stays are fitted with nuts or riveted heads nuts. Working pressure by rules 135 Material of stays Iron. Diameter at

smallest part $\frac{1}{2}$ " Area supported by each stay 81 $\frac{1}{2}$ " Working pressure by rules 124.4 End plates in steam space: Material S. Thickness 32"Pitch of stays 1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ " How are stays secured dble nuts + washers Working pressure by rules 124. Material of stays S. Diameter at smallest part 270"Area supported by each stay 306.25 $\frac{1}{2}$ " Working pressure by rules 124.6 Material of Front plates at bottom S. Thickness 32" Material ofLower back plate S. Thickness $\frac{3}{4}$ " Greatest pitch of stays 14 $\frac{1}{2}$ " x 9" Working pressure of plate by rules 133. Diameter of tubes 32" ext.Pitch of tubes 4 $\frac{3}{4}$ " x 4 $\frac{3}{4}$ " Material of tube plates S. Thickness: Front 32" Back 11" Mean pitch of stays 11 $\frac{3}{8}$ " Pitch across widewater spaces 14 $\frac{1}{2}$ " Working pressures by rules B. 120.1 Girders to Chamber tops: Material S. Depth and thickness ofgirder at centre 6 $\frac{1}{8}$ " x 13" Length as per rule 29 $\frac{3}{4}$ " Distance apart 9" Number and pitch of Stays in each two: 9"

Working pressure by rules 124.6 Superheater or Steam chest: how connected to boiler None. Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

The foregoing is a correct description,

HALL, RUSSELL & CO. LTD.

Manufacturer.

Dates of Survey During progress of work in shops - - - 1912 May 24, June 4, 5, 13, 25, 24, 29 - Is the approved plan of boiler forwarded herewith Yes.
 while building During erection on board vessel - - - July 29, 31 - Aug 1, 4, 9, 13, 15, 21, 26, 30, 31. Total No. of visits 18
 Nov. 26, 24, 28, 29 - Dec 5 (5)

GENERAL REMARKS

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

This boiler has been constructed under special survey, and in accordance with the Secretary's Letter (E 22.2.12) the Rules, & approved plan. The materials & workmanship are good. On completion it was tested by hyd. press. to 240 lbs per sq. inch, & found satisfactory, and for purposes of identification stamped as under. This boiler has now been fitted on board the above named vessel. See Abn. Rpt. No. 11013.

Survey Fee ... £ 4 : 8 : When applied for, 12. 12. 1912.
 Travelling Expenses (if any) £ : : When received, 31. 11. 1912.

Kidley Towell.
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

MARK ON BOILER
 No 720
 LLOYD'S TEST.
 240 LBS.
 31. 8. 12. - R.F.

Committee's Minute

FRI. DEC. 20. 1912

Assigned

sd Minute on
 Abn. Rpt 11013

Lloyd's Register
 Foundation

ABN 32-0131