Hull Rpt. No 23719

Rpt. 5a.

REPORT ON BOILERS.

No. 60255

Received at London Office MIN. 8 MAY 1911

Date of writing Report ... 19... When handed in at Local Office MAY 6 1911 19... Port of NEWCASTLE ON TYNE

No. in Reg. Book. 24 Suppl. Survey held at South Shields" Date, First Survey 31st Oct. 1910 Last Survey May 12th 1911 (Number of Visits 30) Tons Gross / Net

on the (s.s. "Orari)

Master ... Built at Goole By whom built Goole S.Bg. Co. When built ...

Engines made at Middlesbrough By whom made Richardsons Westgarth & Co Ltd (E.No. 374) when made 1911

Boilers made at South Shields By whom made Messrs. Jos. T. Eltringham & Co (1687) when made 1911

Registered Horse Power 85 Owners L. a. Oneta Port belonging to ...

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer & Son

(Letter for record S.) **Total Heating Surface of Boilers** 1600 sq ft Is forced draft fitted ... **No. and Description of Boilers** One cyl. multi: steel **Working Pressure** 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 21/1/11

No. of Certificate 8079 Can each boiler be worked separately — **Area of fire grate in ~~each~~ boiler** 51½ sq ft No. and Description of safety valves to each boiler ... Area of each valve ... Pressure to which they are adjusted ...

Are they fitted with easing gear ... 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 ... Mean dia. of boilers 13'-1 15/16" Length 10'-6"

Material of shell plates Steel Thickness 1/16" Range of tensile strength 29-33 tons Are the shell plates welded or flanged Butt strap

Descrip. of riveting: cir. seams D.R. long. seams T.R. Diameter of rivet holes in long. seams 1⅛" Pitch of rivets 8"

Lap of plates or width of butt straps 15-3/4" Per centages of strength of longitudinal joint rivets 86·6 % plate 85·9 % Working pressure of shell by rules 184 lbs Size of manhole in shell 16" x 12" Size of compensating ring 4½" x 1 1/16" **No. and Description of Furnaces in each boiler** 3 plain welded Material Steel Outside diameter 3'-3" Length of plain part top 6'-4½ bottom 6'-4½ Thickness of plates crown ¾" bottom ¾"

Description of longitudinal joint Weld. No. of strengthening rings — Working pressure of furnace by the rules 190 lbs Combustion chamber plates: Material Steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 1" Pitch of stays to ditto: Sides 9½"x9½" Back 9½"x9¾" Top 9¾"x8½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 186 lbs Material of stays Steel Diameter at smallest part 1 19/32" Area supported by each stay 88 □" Working pressure by rules 202 lbs End plates in steam space: Material Steel Thickness 1 1/16" Pitch of stays 17"x19¾" How are stays secured Nuts & washers Working pressure by rules 184 lbs Material of stays Steel Diameter at smallest part 2 21/32" Area supported by each stay 336 (300) □" Working pressure by rules 195 lbs Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 14¼ Working pressure of plate by rules 183 lbs Diameter of tubes 3½" Pitch of tubes 4¾" Material of tube plates Steel Thickness: Front 1 1/16" Back 25/32" Mean pitch of stays 10 11/16" Pitch across wide water spaces 14½" Working pressures by rules 191 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 1½" Length as per rule 2'-7½ Distance apart 8½" Number and pitch of Stays in each 2 – 9¾" Working pressure by rules 182 lbs Superheater or Steam chest: how connected to boiler — 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,

J. T. Eltringham & Co *Manufacturer.*

Dates of Survey while building — During progress of work in shops: 1910 Oct. 31. Nov. 1.9.10.12.17.19.23.24 Dec. 1.6.8.12.19.21. 1911 Jan. 3.16.17.24.24.27.31. Feb. 2.21.27.28. Mar 16. May 10-11-12

During erection on board vessel: 30

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits 26 +

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

This boiler has been constructed under special survey; the materials & workmanship being sound & good.

Survey Fee ... ... £ 5 : 7 : 0 When applied for. MAY 8 1911 19...

Travelling Expenses (if any) £ : : When received. 11/5/11 19...

George Murdoch

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

Committee's Minute TUE. 30 MAY 1911

Assigned see minute on Mdse. Rpt 6796

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