Rpt. 5.

REPORT ON BOILERS.

No. 24326

Port of Glasgow Received at London Office TUES. 21 AUG 1906

No. in Reg. Book. Survey held at Glasgow Date, first Survey 9th Feby 05 Last Survey 10th Aug 1906 (Number of Visits)

1790 on the "J J Juvric" Tons { Gross / Net

Master Built at Pt. Glasgow By whom built Russell & Co When built 1906

Engines made at Glasgow By whom made David Rowan & Co (No 427) when made 1906

Boilers made at do By whom made do when made do

Registered Horse Power Owners A Weir & Co Port belonging to Glasgow

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MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel The Glasgow Iron & Steel Co Ld.

(Letter for record (S).) **Total Heating Surface of Boilers** 1191 ☐' Is forced draft fitted No **No. and Description of Boilers** One Single Ended **Working Pressure** 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 24/5/06

No. of Certificate 8182 Can each boiler be worked separately — **Area of fire grate in each boiler** 37.2 ☐' No. and Description of safety valves to each boiler 2 Spring Area of each valve 7 ☐" Pressure to which they are adjusted 105 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 Abt. 12" Mean dia. of boilers 12'-0" Length 10'-0"

Material of shell plates Steel Thickness 25/32" Range of tensile strength 28 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D. R. L. long. seams T. R. L. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3.1/8"

Lap of plates ~~or width of butt straps~~ 6½" Per centages of strength of longitudinal joint rivets 70.8 plate 70.5 Working pressure of shell by rules 103 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 2'-7" x 2'-3" **No. and Description of Furnaces in each boiler** 2 Plain Material Steel Outside diameter 3'-7 5/8" Length of plain part top 72 bottom 103 Thickness of plates crown 9/16" bottom 9/16" & 7/8"

Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 100 lbs Combustion chamber plates: Material Steel Thickness: Sides ½" Back ½" Top ½" Bottom 7/8" Pitch of stays to ditto: Sides 7" x 8 1/4" Back 8 7/8" x 8 5/8"

Top 7" x 9½" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 100 lbs Material of stays Steel ~~Diameter~~ area at smallest part 9.9 Area supported by each stay 76 ☐" Working pressure by rules 104 End plates in steam space: Material Steel Thickness 7/8"

Pitch of stays 18½" x 18" How are stays secured T. Nuts Working pressure by rules 103 Material of stays Steel ~~Diameter~~ area at smallest part 3.49 ☐"

Area supported by each stay 332 ☐" Working pressure by rules 105 Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 21/32" Greatest pitch of stays 14" Working pressure of plate by rules 110 Diameter of tubes 3½"

Pitch of tubes 4 3/4" x 4 5/8" Material of tube plates Steel Thickness: Front 3/4" Back 21/32" Mean pitch of stays 11 3/4" Pitch across wide water spaces 14" Working pressures by rules 102 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7" x 3/4" x 2 Length as per rule 30½" Distance apart 9½" Number and pitch of Stays in each 3 - 7"

Working pressure by rules 110 lbs 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

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VERTICAL DONKEY BOILER— No. Description Manufacturers of steel Made at By whom made When made Where fixed Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates Thickness of water tubes

The foregoing is a correct description,

David Rowan & Co Manufacturer.

Dates of Survey while building { During progress of work in shops - - / During erection on board vessel - - - } See accompanying reports

Total No. of visits

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " "

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

This boiler has been constructed under Special Survey & is of good materials & workmanship. It has been fitted on board as stated Rpt. 4.

The amount of Entry Fee... £ : : When applied for.

Special ... ... £ : : ..... 19.....

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any)) £ : : ..... 19.....

H Gardner-Smith.

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

Committee's Minute Glasgow 20 AUG 1906

Assigned see accompanying report

(*The Surveyors are requested not to write on or below the space for Committee's Minute.*)

Certificate (if required) to be sent t