Rpt. 5a.

REPORT ON BOILERS.

No. 30020.

Received at London Office WED. 3 MAY 1911

Date of writing Report ..... 19 .... When handed in at Local Office 27/4/1911 Port of Glasgow.

No. in Reg. Book. Survey held at Glasgow Date, First Survey 16th March 10 Last Survey 25th April 1911 (Number of Visits 63.)

on the S/S "Havildar" Tons Gross 4911. Net 3086.

Master J. Clingar Built at Glasgow By whom built C. Connell & Co When built 1911

Engines made at Glasgow By whom made Dunsmuir & Jackson Ld 365 when made 1911

Boilers made at ditto By whom made ditto when made 1911

Registered Horse Power ..... Owners ~~Asiatic Stm Nav Co Ld~~ Messrs Turner & Co. Port belonging to Liverpool

MULTITUBULAR BOILERS ~~MAIN~~, ~~AUXILIARY~~ ~~OR~~ DONKEY.—Manufacturers of Steel Colville

(Letter for record A r.) Total Heating Surface of Boilers 953 ☐' Is forced draft fitted No No. and Description of Boilers One Single Ended Working Pressure 100. Tested by hydraulic pressure to 200 Date of test 24-11-10

No. of Certificate 10646 Can each boiler be worked separately ✓ Area of fire grate in each boiler 30.83 ☐' No. and Description of safety valves to each boiler Double Spring Area of each valve 5.9 ☐" Pressure to which they are adjusted 105

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 6' Mean dia. of boilers 10-6 21/32" Length 9'-6"

Material of shell plates S Thickness 21/32" Range of tensile strength 28/32 Are the shell plates welded or flanged ✓

Descrip. of riveting: cir. seams DR long. seams TR Lap Diameter of rivet holes in long. seams 1" Pitch of rivets 3 13/16"

Lap of plates ~~or width of butt straps~~ 4" Per centages of strength of longitudinal joint rivets 80 % plate 74 % Working pressure of shell by rules 102 Size of manhole in shell 16"×12" Size of compensating ring McNeils No. and Description of Furnaces in each boiler 2 plain Material S Outside diameter 3'-2 1/8" Length of plain part top 6-5 1/2" bottom 6-9 1/4" Thickness of plates crown / bottom 9/16"

Description of longitudinal joint welded No. of strengthening rings One Working pressure of furnace by the rules 105 Combustion chamber plates: Material S Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 8"×8 3/4" Back 8 1/2"×8 7/16" Top 9"×8" If stays are fitted with nuts or riveted heads Nuts: Working pressure by rules 106 Material of stays Iron ~~Diameter~~ area at smallest part 1.76 1.98 ☐" 1.22 1.47 ☐" Area supported by each stay 72 ☐" Working pressure by rules 102 End plates in steam space: Material S Thickness 3/4" Pitch of stays 15 1/2"×15 1/4" How are stays secured DN. Working pressure by rules 105 Material of stays ~~Iron~~ steel ~~Diameter~~ area at smallest part 103 Area supported by each stay 240 ☐" Working pressure by rules 103 Material of Front plates at bottom S Thickness 3/4" Material of Lower back plate S Thickness 21/32" Greatest pitch of stays 14" Working pressure of plate by rules 106 Diameter of tubes 3" Pitch of tubes 4 1/4"×4 1/8" Material of tube plates S Thickness: Front 3/4" Back 11/16" Mean pitch of stays 12 1/2" Pitch across wide water spaces 14" Working pressures by rules 107 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 6"×3/4" (2) Length as per rule 2-4" Distance apart 8. Number and pitch of Stays in each 2 at 9"

Working pressure by rules 110 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,

For DUNSMUIR & JACKSON Limited
James Fletcher Manager
Manufacturer.

Dates of Survey while building: During progress of work in shops - - See accompanying Machinery rpt. / During erection on board vessel - - -

Is ~~the approved~~ plan of boiler forwarded herewith Yes

Total No. of visits

Returned 14/5/11

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality. This Report accompanies that of the Main Engines & Boilers

Survey Fee ... ... £ : : } When applied for. ..... 19.....
Travelling Expenses (if any)) £ : : } When received. ..... 19.....

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

Committee's Minute Glasgow 2 MAY 1911

Assigned See minute on machinery report.

W501-024

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