Rpt. 5.

REPORT ON BOILERS.

Gls. No. 24593
Leith No. 11734.

Port of Glasgow Received at London Office THUR. NOV 8 1906

No. in Reg. Book. Survey held at Glasgow. Date, first Survey 21st March Last Survey 8th Oct 1906 (Number of Visits Gls. 20 Lth 6 = 26.) 23rd Oct 1906.

on the S. S. "AWAJI MARU". Tons Gross 1974.43 Net 1154.91

Master W Cockburn Built at Grangemouth By whom built Grangemouth & Greenock Dkyd When built 1906

Engines made at Glasgow By whom made Dunsmuir & Jackson when made 1906

Boilers made at Glasgow By whom made Dunsmuir & Jackson Ltd 311 when made 1906.

Registered Horse Power 214 Owners Nippon Yusen Kabushiki Kaisha Port belonging to Tokio

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MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ **DONKEY.**—Manufacturers of Steel D. Colville & Sons.

(Letter for record ✓) **Total Heating Surface of Boilers** 574 sq. ft 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 17/9/06.

No. of Certificate 8335 Can each boiler be worked separately ✓ **Area of fire grate in each boiler** 44.3 □ft No. and Description of safety valves to each boiler 2 patent spring Area of each valve 4.91 □" Pressure to which they are adjusted 100 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'-6" Mean dia. of boilers 9'.. 0" Length 8'.. 6"

Material of shell plates steel Thickness 5/8" Range of tensile strength 28 to 32 Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams double long. seams treble Diameter of rivet holes in long. seams 15/16" Pitch of rivets 3 3/4"

Lap of plates ~~or width of butt straps~~ 6 5/8" Per centages of strength of longitudinal joint rivets 75 plate 75 Working pressure of shell by rules 112 lbs Size of manhole in shell 16" × 12" Size of compensating ring McNeils **No. and Description of Furnaces in each boiler** 2 plain Material steel Outside diameter 2'.. 9" Length of plain part top 5'.. 2" bottom 5'.. 0 Thickness of plates crown bottom 15/32"

Description of longitudinal joint welded No. of strengthening rings 1 part-l Working pressure of furnace by the rules 115 lbs Combustion chamber plates: Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16 Bottom 9/16" Pitch of stays to ditto: Sides 8" × 10" Back 8½" × 10" Top 8" × 10" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 178 Material of stays steel ~~Diameter~~ area at smallest part 1.22 □" Area supported by each stay 85 □" Working pressure by rules 115 lbs End plates in steam space: Material steel Thickness 7/8" Pitch of stays 18" × 15" How are stays secured nuts Working pressure by rules 175 Material of stays steel ~~Diameter~~ area at smallest part 3.43 □" Area supported by each stay 270 □" Working pressure by rules 176 Material of Front plates at bottom steel Thickness 11/16" Material of Lower back plate steel Thickness 5/8" Greatest pitch of stays 13" × 8½" Working pressure of plate by rules 111 Diameter of tubes 3" Pitch of tubes 4 1/8" × 4 1/4" Material of tube plates steel Thickness: Front 7/8" Back 5/8" Mean pitch of stays 10.3" Pitch across wide water spaces 14" Working pressures by rules 140 lbs Girders to Chamber tops: Material iron Depth and thickness of girder at centre 6" × 2 - 1" Length as per rule 24 3/4" Distance apart 10" Number and pitch of Stays in each 2 - 8" Working pressure by rules 156 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 ✓

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,

Manufacturer.

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

Total No. of visits

Is the approved plan of main boiler forwarded herewith ✓

" " " donkey " " " yes

W1378-0030

GENERAL REMARKS (*State quality of workmanship, opinions as to class, &c.* See report on machinery.

Certificate (if required) to be sent to

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

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	.....19.....
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any))	£	:	:	.....19.....

FRI. NOV 9 1906

Committee's Minute

Assigned

J. W. Dunnock. A. T. Graham

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