

REPORT ON BOILERS.

No. 29517
WED. 15 FEB 1911
WED. 23 NOV 1910

Received at London Office
 Date of writing Report 14th Nov 1910. When handed in at Local Office 14/11/10 Port of Glasgow.
 No. in Survey held at Glasgow. Date, First Survey 13th Sept. Last Survey 12th Nov 1910
 Reg. Book. on the boilers for the s/s "ENDCLIFFE." (Number of Visits 10.) Gross Tons }
 Net Tons }
 Master Built at Maryport By whom built W. Walker (N^o 94) When built ✓
 Engines made at Glasgow By whom made J. Ritchie (N^o 37) when made 1910.
 Boilers made at do By whom made A.W. Dalglisk (N^o 478) when made 1910.
 Registered Horse Power Owners Port belonging to

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

(Letter for record £) Total Heating Surface of Boilers 1278^{sq} ft Is forced draft fitted ✓ no No. and Description of

Boilers one single ended marine Working Pressure 130^{lb} Tested by hydraulic pressure to 260^{lb} Date of test 12.11.10.

No. of Certificate 10660. Can each boiler be worked separately ✓ Area of fire grate in each boiler 47.25^{sq} ft No. and Description of safety valves to each boiler ✓ Double Spring loaded Area of each valve ✓ 12.56^{sq} in Pressure to which they are adjusted ✓ 135^{lb}

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 ✓ 7'-0" Inside dia. of boilers 12'-6" Length 9'-6"

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

Descrip. of riveting: cir. seams D.R. lap long. seams T.R.P.S. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 6 7/8"

width of butt straps 14 3/4" Per centages of strength of longitudinal joint rivets 85.8% Working pressure of shell by rules 131^{lb} Size of manhole in shell 16" x 12" Size of compensating ring 6" x 25/32" plate 84.6% No. and Description of Furnaces in each boiler 3 plain

Material Steel Outside diameter 39" Length of plain part 69" Thickness of plates 19/32"

Description of longitudinal joint welded No. of strengthening rings one Working pressure of furnace by the rules 140 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 1/2" Top 19/32" Bottom 9/16" Pitch of stays to ditto: Sides 8 1/2" x 8" Back 7 1/2" x 7 1/2"

Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 137^{lb} Material of stays Steel area at smallest part 1.24^{sq} in Area supported by each stay 56^{sq} in Working pressure by rules 132 End plates in steam space: Material Steel Thickness 7/8"

Pitch of stays 16" x 17" How are stays secured on + wad Working pressure by rules 133^{lb} Material of stays Steel area at smallest part 3.43^{sq} in

Area supported by each stay 272^{sq} in Working pressure by rules 131^{lb} Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/2" Working pressure of plate by rules 163 Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 9" x 10 3/4" Pitch across wide water spaces 13 1/2" Working pressures by rules 196^{lb} Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8-1 1/4" Centre Length as per rule 28 7/8" Distance apart 10' + 8" Number and pitch of Stays in each 2 @ 8 1/2"

Working pressure by rules 143^{lb} 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 ✓

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 ✓

Survey request form No. 522 attached The foregoing is a correct description, A. W. Dalglisk Manufacturer.

Dates During progress of work in shops - - - 1910. Sep 13. 24. 29. Oct. 8. 15. 20. 27 Is the approved plan of boiler forwarded herewith yes.

while During erection on board vessel - - - Nov 5. 9. 12 Total No. of visits 10.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The workmanship & materials are good. The boiler has been built under Special Survey, & will be fitted on board the vessel at Glasgow.

This boiler has been satisfactorily fitted and secured on above vessel.

Survey Fee ... £ 3 : 10 - When applied for. Monthly asc

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

Committee's Minute Glasgow 14 FEB. 1911

Assigned See minute on G.L. Report. 29741

H. Foster
Glasgow
4-2-11

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



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