

REPORT ON BOILERS.

15 OCT 1934

Received at London Office

of writing Report 19 When handed in at Local Office 13/10/1934 Port of Belfast
 visits included in S. & machinery
 Survey held at Belfast Date, First Survey _____ Last Survey _____ 19____
 Book. _____
 on the Steel twin sc "ASTURIAS" (Number of Visits _____) Tons {Gross _____ Net _____
 at Belfast By whom built Harland Wolff Ltd. Yard No. 507 When built 1925
 es made at Belfast By whom made Harland Wolff Ltd. Engine No. 5010 When made 1924
 rs made at Annan By whom made Cochran & Co. Annan Ltd. Boiler No. 9521/2 When made 1925
 rs Royal Mail Lines Ltd. Port belonging to Belfast

VERTICAL DONKEY BOILERS

at Annan By whom made Cochran & Co. Annan Ltd Boiler No. 9521/2 When made 1925 Where fixed Aux motor room
 ufacturers of Steel _____
 Heating Surface of Boiler 600 sq each Is forced draught fitted no Coal or Oil fired oil
 and Description of Boilers Two vertical multitubular Working pressure 100 lbs
 ed by hydraulic pressure to _____ Date of test _____ No. of Certificate ✓
 of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler Two Spring-loaded
 of each set of valves per boiler { per rule 7.80" Pressure to which they are adjusted 100 lbs Are they fitted with easing gear Yes
 as fitted 9.80" ✓
 whether steam from main boilers can enter the donkey boiler no Smallest distance between boiler or uptake and bunkers _____
 odwork Is oil fuel carried in the double bottom under boiler _____ Smallest distance between base of boiler and tank top plating _____
 Is the base of the boiler insulated _____ Largest internal dia. of boiler 70" Height 17'0"
 plates: Material Steel Tensile strength 28-32 tons Thickness 1/2"
 he shell plates welded or flanged no Description of riveting: circ. seams { end Top single standard long. seams double
 inter. single
 of rivet holes in { circ. seams 27/32" Pitch of rivets { 2 1/8 x 2 3/4 Percentage of strength of circ. seams { plate 60.7 of Longitudinal joint { plate 69.1
 long. seams 27/32" { 2 1/4 x 2 1/4 { rivets 43.27 { rivets 65.25
 combined 70.9
 ing pressure of shell by rules 105 lbs Thickness of butt straps { outer _____ inner _____
 Crown: Whether complete hemisphere, dished partial spherical, or flat hemisphere Material Steel
 le strength 26/30 tons Thickness 7/8" + 7/16" Radius 42" Working pressure by rules 105 lbs
 ription of Furnace: Plain, spherical, or dished crown spherical Material Steel Tensile strength 26/30 tons
 ness 17/32" External diameter { top _____ bottom _____ Length as per rule _____ Working pressure by rules _____
 of support stays circumferentially _____ and vertically _____ Are stays fitted with nuts or riveted over _____
 eter of stays over thread _____ Radius of spherical or dished furnace crown 36" Working pressure by rule 122 lbs
 ness of Ogee Ring 7/8" Diameter as per rule { D 7 1/2" Working pressure by rule 101 lbs
 d 6 1/2"
 ustion Chamber: Material Steel Tensile strength 26/30 tons Thickness of top plate 3/4"
 s if dished _____ Working pressure by rule _____ Thickness of back plate _____ Diameter if circular _____
 h as per rule _____ Pitch of stays _____ Are stays fitted with nuts or riveted over _____
 eter of stays over thread _____ Working pressure of back plate by rules _____
 Plates: Material { front Steel Tensile strength { 26/30 tons Thickness { 3/4" Mean pitch of stay tubes in nests 13 1/2"
 back Steel
 rprising shell, Dia. as per rule { front _____ Pitch in outer vertical rows { _____ Dia. of tube holes FRONT { stay 2 1/8" BACK { stay 2 1/2"
 back _____ { plain 2 1/8" { plain 2 1/2"
 alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 153 lbs
 back 110 lbs
 s to combustion chamber tops: Material Steel Tensile strength 26/32 tons
 and thickness of girder at centre gusset plate 7/8" thick 11 1/2" throat Length as per rule _____
 ce apart _____ No. and pitch of stays in each _____ Working pressure by rule _____



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Crown stays: Material Tensile strength Diameter { at body of stay, or over threads }
 No. of threads per inch Area supported by each stay Working pressure by rules

Screw stays: Material Tensile strength Diameter { at turned-off part, or over threads } No. of threads per inch
 Area supported by each stay Working pressure by rules Are the stays drilled at the outer ends

Tubes: Material External diameter { plain $2\frac{1}{2}$ " stay $2\frac{1}{2}$ " } Thickness { $\frac{11}{32}$ " }
 No. of threads per inch *nine* Pitch of tubes $3\frac{3}{4} \times 4$ " Working pressure by rules *Plain 125 lb Stay 120*

Manhole Compensation: Size of opening in shell plate 16×12 " Section of compensating ring 28 " dia \times $4\frac{1}{2}$ " thick No. of rivets and dia of rivet holes $36 - \frac{27}{32}$ " Outer row rivet pitch at ends Depth of flange if manhole flanged

Uptake: External diameter Thickness of uptake plate

Cross Tubes: No. External diameters { } Thickness of plates

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with _____

The foregoing is a correct description,

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

Is the approved plan of boiler forwarded herewith (If not state date of approval.)
 Total No. of visits _____

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

These Boilers have been examined internally and externally. The scankings have been checked against the approved drawings. The mountings, doors & fastenings were examined. The oil fuel pressure lines were tested. The safety valves were adjusted under steam. The accumulation did not exceed. In my opinion the boilers are now in good order and eligible for class subject to annual

Survey Fee £ : : } When applied for, 19

Travelling Expenses (if any) £ : : } When received, 19

R. E. Ames
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **TUE. 16 OCT 1934**
 Assigned *see J. E. Machy*

