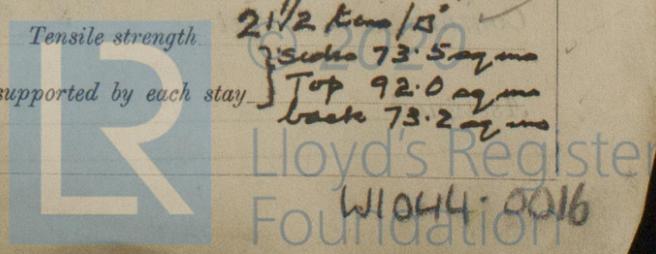


REPORT ON BOILERS.

Date of writing Report 1-4-40 1940 When handed in at Local Office 1-4-40 1940 Port of Aberdeen
 Received at London Office APR 13 1940
 No. in Survey held at Aberdeen Date, First Survey 3.4.39 Last Survey 28.3.1940
 Reg. Book. Bois Rose (Number of Visits 34.) Gross 1373.88
 on the Net 837.38
 Master Built at Aberdeen By whom built Hall, Russell & Co Ltd Yard No. 751 When built 1940
 Engines made at Aberdeen By whom made Hall, Russell & Co Ltd Engine No. 751 When made 1940
 Boilers made at Aberdeen By whom made Hall, Russell & Co Ltd Boiler No. 751 When made 1940
 Nominal Horse Power 207 Owners Societe Anonyme Les Pecheries de Fecamp Port belonging to Fecamp

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Steel Company of Scotland Ltd. (Letter for Record T)
 Total Heating Surface of Boilers 3240 sq. ft. Is forced draught fitted Yes Coal or Oil fired Oil
 No. and Description of Boilers Two - single ended. Working Pressure 215 lb/sq. in.
 Tested by hydraulic pressure to 372.5 lb/sq. in. Dates of test 20.10.39 No. of Certificate 5-1142 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two Spring loaded
 Area of each set of valves per boiler {per Rule 10.57 sq. in. Pressure to which they are adjusted 215 lb/sq. in. Are they fitted with easing gear Yes
 as fitted 11.80 sq. in.
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 2'-3" Is oil fuel carried in the double bottom under boilers Yes
 Smallest distance between shell of boiler and tank top plating 1'-8" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 12'-9" Length 11'-0" Shell plates: Material Mild Steel Tensile strength 29/33 tons/sq. in.
 Thickness 17/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R.
 long. seams T.R.D.B.S. Diameter of rivet holes in {circ. seams 1 5/16" Pitch of rivets {inter. 3 7/8"
 long. seams 1 5/16" {plate 8 15/16"
 Percentage of strength of circ. end seams {plate 66.27% Percentage of strength of circ. intermediate seam {plate 217.56 lb/sq. in.
 rivets 45.45% {rivets 85.31%
 Percentage of strength of longitudinal joint {plate 85.31% Working pressure of shell by Rules 217.56 lb/sq. in.
 rivets 92.47% {combined 89.16%
 Thickness of butt straps {outer 59/64" No. and Description of Furnaces in each Boiler 2 - Merisani, corrugated.
 inner 1 3/64" Material Mild Steel Tensile strength 26/30 tons/sq. in. Smallest outside diameter 5'-10"
 Length of plain part {top 4 1/4" Thickness of plates {crown 1 1/16" Description of longitudinal joint Welded
 bottom 4 1/4" {bottom 1 1/16"
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 219.6 lb/sq. in.
 End plates in steam space: Material Mild Steel Tensile strength 26/30 tons/sq. in. Thickness 1 1/16" Pitch of stays 17 3/4" x 15 3/8"
 How are stays secured Double nuts & washers Working pressure by Rules 218.6 lb/sq. in.
 Tube plates: Material {front Steel Tensile strength 26/30 tons/sq. in. Thickness 31/32"
 back Steel {Tensile strength 26/30 tons Thickness 27/32"
 Mean pitch of stay tubes in nests 10.85" Pitch across wide water spaces 14 1/2" x 9 1/4" Working pressure {front 219.9 lb/sq. in.
 back 218.2 lb/sq. in.
 Girders to combustion chamber tops: Material Mild Steel Tensile strength 29/33 tons Depth and thickness of girder
 at centre 8" x 1 3/4" Length as per Rule 31 15/32" Distance apart 9 5/16" No. and pitch of stays
 in each 2 @ 9 7/8" Working pressure by Rules 217.8 lb/sq. in. Combustion chamber plates: Material Mild Steel
 Tensile strength 26/30 tons/sq. in. Thickness: Sides 2 5/32" Back 1 1/16" Top 2 5/32" Bottom 2 5/32"
 Pitch of stays to ditto: Sides 7 7/16" x 9 7/8" Back 9" x 8 1/8" Top 9 7/8" x 9 5/16" Are stays fitted with nuts or riveted over Nuts
 Working pressure by Rules 224.3 lb/sq. in. Front plate at bottom: Material Mild Steel Tensile strength 26/30 tons/sq. in.
 Thickness 31/32" Lower back plate: Material Mild Steel Tensile strength 26/30 tons/sq. in. Thickness 29/32"
 Pitch of stays at wide water space 14 1/2" x 8 1/8" Are stays fitted with nuts or riveted over Nuts
 Working Pressure 243.5 lb/sq. in. Main stays: Material Mild Steel Tensile strength 20/32 tons/sq. in.
 Diameter {At body of stay, 2 7/8" x 3" diam No. of threads per inch 6 Area supported by each stay 262 ~ 295 sq. in.
 or 2 7/8" Working pressure by Rules 234.5 ~ 227.8 lb/sq. in. Screw stays: Material Iron Tensile strength 21 1/2 tons/sq. in.
 Diameter {At turned off part, Back & sides 1 3/4" Top 2" No. of threads per inch 9 Area supported by each stay {Top 92.0 sq. in.
 or Back & sides 1 3/4" Top 2" {Over threads Back 73.2 sq. in.



Working pressure by Rules *248 1/2 lb/sq* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part. *2" dia* or Over threads *2" dia* }
 No. of threads per inch *9* Area supported by each stay *95.5 sq in* Working pressure by Rules *260 lb/sq*
 Tubes: Material *L.W.W.1* External diameter { Plain *3 1/2"* Stay *3 1/2"* Thickness *8 W.T. 1/4" 5/16" 7/16"* No. of threads per inch *9*
 Pitch of tubes *4 3/4" x 4 5/8"* Working pressure by Rules *215 lb/sq* Manhole compensation: Size of opening in shell plate *16" x 20"* Section of compensating ring *33" x 29" x 1 1/8"* No. of rivets and diameter of rivet holes *24 @ 1 1/2"*
 Outer row rivet pitch at ends *8 15/16"* Depth of flange if manhole flanged *3 1/2"* Steam Dome: Material *None*
 Tensile strength *✓* Thickness of shell *✓* Description of longitudinal joint *✓*
 Diameter of rivet holes *✓* Pitch of rivets *✓* Percentage of strength of joint { Plate *✓* Rivets *✓* }
 Internal diameter *✓* Working pressure by Rules *✓* Thickness of crown *✓* No. and diameter of stays *✓*
 Inner radius of crown *✓* Working pressure by Rules *✓*
 How connected to shell *✓* Size of doubling plate under dome *✓* Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell *✓*

Type of Superheater *Smokebox* Manufacturers of Tubes *The Superheater Co Ltd*
 Number of elements *28* Material of tubes *Solid Drawn Steel* Internal diameter and thickness of tubes *20 mm x 2.5 mm*
 Material of headers *Forged Steel* Tensile strength *no G. 380* Thickness *no G. 380* Can the superheater be shut off and the boiler be worked separately *Yes*
 Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes*
 Area of each safety valve *1.76 sq in* Are the safety valves fitted with easing gear *Yes* Working pressure as per Rules *215 lb/sq*
 Pressure to which the safety valves are adjusted *215 lb/sq* Hydraulic test pressure: tubes *645 lb/sq* forgings *645 lb/sq* and after assembly in place *645 lb/sq* Are drain cocks or valves fitted to free the superheater from water where necessary *Yes*
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes*

The foregoing is a correct description,
FOR HALL, RUSSELL & CO., LTD. Manufacturer.

Dates of Survey { During progress of work in shops - *1912* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Yes*
 while building { During erection on board vessel - *July 10th, 21st, 27th, 28th, 15th, 14th, 15th, 27th, 11th, 18th, 17th, 28th* Total No. of visits *34*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *VIKINGS ABM RPT N° 18293*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers with Superheaters have been constructed under Special Survey in accordance with the Rules and approval plans.*
The materials and workmanship are good.
The boilers have been securely fitted on board the vessel concerned under working conditions and found good.
The safety valves have been adjusted under steam as stated, tried for accumulation and found satisfactory.
For record of survey. Please see Surveying Rpt. attached.

Survey Fee *Charged as Surveying Rpt.* £ : : } When applied for, 19
 Travelling Expenses (if any) £ : : } When received, 19
 J. A. Gray a Director
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUE. 9 APR 1940**
 Assigned *See Abn. J.C. 20231*



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