

REPORT ON BOILERS.

No. 19219

Date of writing Report 1.7.30 When handed in at Local Office 25.7.30 Port of GREENOCK
 Received at London Office
 No. in Reg. Book Greenock Date, First Survey 18th November 1929 Last Survey 24.4.1930
 on the M/S "Atheneum" (Number of Visits) Gross 8940.98 Tons Net 5240.91
 Master P. Longou Built at P. Longou By whom built W. Hamilton Yard No. H13 When built 1930
 Engines made at Greenock By whom made John & K. Macaid & Co. Engine No. 1755 When made 1930
 Boilers made at ditto By whom made ditto Boiler No. 1755 When made 1930
 Nominal Horse Power United Oil Co. Ltd. Owners United Oil Co. Ltd. Port belonging to Liverpool

MULTITUBULAR BOILERS [REDACTED], AUXILIARY, [REDACTED].

Manufacturers of Steel D. Colville Scottish Iron & Steel Co. of Scotland (Letter for Record S)
 Total Heating Surface of Boilers 1220.95 sq ft Is draught fitted Yes Oil fired oil
 No. and Description of Boilers one single ended Working Pressure 180
 Tested by hydraulic pressure to 320 Date of test 18.4.30 No. of Certificate 1942 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler Oil Fuel No. and Description of safety valves to each boiler Double Spring
 Area of each set of valves per boiler { per Rule 9.38 sq ft as fitted 9.81 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear Yes
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler —
 Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" Is oil fuel carried in the double bottom under boilers Yes
 Smallest distance between shell of boiler and tank top plating 14 1/2" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 11'-2 1/16" Length 10'-6" Shell plates: Material S Tensile strength 28-32
 Thickness 15/16" Are the shell plates welded or flanged — Description of riveting: circ. seams DR
 long. seams TRIDBS Diameter of rivet holes in { circ. seams 1 1/8" Pitch of rivets { 3.85" long. seams 1"
 Percentage of strength of circ. end seams { plate 40.8 rivets 45.4 Percentage of strength of circ. intermediate seam { plate — rivets —
 Percentage of strength of longitudinal joint { plate 85.4 rivets 92.4 combined 87.98 Working pressure of shell by Rules 182
 Thickness of butt straps { outer 23/32" inner 24/32" No. and Description of Furnaces in each Boiler 2 Deighton
 Material S Tensile strength 26-30 Smallest outside diameter 3'-0 1/16"
 Length of plain part { top — bottom — Thickness of plates { crown 15/32" bottom — Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 182
 End plates in steam space: Material S Tensile strength 26-30 Thickness 1 1/32" Pitch of stays 16 1/2" x 16 1/2"
 How are stays secured DN Working pressure by Rules 182
 Tube plates: Material { front SAU back — Tensile strength { 26-30 Thickness { 23/32"
 Mean pitch of stay tubes in nests 9'48" Pitch across wide water spaces 14" Working pressure { front 184 back 192
 Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder
 at centre 8'4 3/4 (2) Length as per Rule 2'-4.62 Distance apart 8 No. and pitch of stays
 in each 2 at 10" Working pressure by Rules 183 Combustion chamber plates: Material S
 Tensile strength 26-30 Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 21/32"
 Pitch of stays to ditto: Sides 8'10" Back 9'4 1/4" Top 8'10" Are stays fitted with nuts or riveted over Nuts
 Working pressure by Rules 180 Front plate at bottom: Material S Tensile strength 26-30
 Thickness 1" Lower back plate: Material S Tensile strength 26-30 Thickness 25/32"
 Pitch of stays at wide water space 133 1/4" Are stays fitted with nuts or riveted over Nuts
 Working Pressure 183 Main stays: Material S Tensile strength 28-32
 Diameter { At body of stay, 2 5/8" or Over threads — No. of threads per inch 6 Area supported by each stay 243.5 sq in
 Working pressure by Rules 184 Screw stays: Material S Tensile strength 26-30
 Diameter { At turned off part, 1 5/8" or Over threads — No. of threads per inch 9 Area supported by each stay 80 sq in

Working pressure by Rules 190 Are the stays drilled at the outer ends NO Margin stays: Diameter 13/4"
 No. of threads per inch 9 Area supported by each stay 103.5 sq" Working pressure by Rules 214
 Tubes: Material Iron External diameter 3" Thickness 9 WG No. of threads per inch 9
 Pitch of tubes 4 1/4" x 4 3/16" Working pressure by Rules 183 Manhole compensation: Size of opening in
 shell plate 20" x 16" Section of compensating ring 2.83 1/4" + 2.49 1/4" + 1/2" No. of rivets and diameter of rivet holes 38 at 1 1/8"
 Outer row rivet pitch at ends 1 1/2" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint
 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 Manufacturers of
 Number of elements Material of tubes Internal diameter and thickness of tubes
 Material of headers Tensile strength Thickness Can the superheater be shut off and
 the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
 Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per
 Rules Pressure to which the safety valves are adjusted Hydraulic test pressure:
 tubes castings and after assembly in place Are drain cocks or valves fitted
 to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

The foregoing is a correct description,
 For John G. Kincaid & Co. Ltd.
W. C. Carter Director. Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) Yes
 Total No. of visits ✓

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M/S 'Äkeltunplan' No 19205 4rk

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This boiler was built under special survey in accordance with the approved plans. The workmanship is of a high quality and is now securely fitted on board. This Report accompanies that of the Machinery

Survey Fee Charged on Machinery Part When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

W. L. Gordon-McNeill
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 29 JUL 1930
 Assigned See accompanying report.

