

REPORT ON BOILERS.

No. 19304

51480

Received at London Office

18 MAR 1931

13 MAY 1931

Date of writing Report 28.2.31 When handed in at Local Office 10th MARCH 1931 Port of Cremack

No. in Reg. Book. Survey held at Cremack Date, First Survey 1st DECEMBER 1930 Last Survey 6th MARCH 1931

on the S S GUINNESS (Number of Visits 21) Tons { Gross 1151 Net 556

Master _____ Built at Troon By whom built Aiba Skipluddey & Co When built 1931

Engines made at Troon By whom made Aiba Skipluddey & Co Engine No. 152 When made 1931

Boilers made at Cremack By whom made John & Kincaid Co^{rs} Boiler No. 202 When made 1931

Nominal Horse Power 194 Owners A. Guinness Son & Co^y Ltd Port belonging to London

MULTITUBULAR BOILERS—MAIN, [REDACTED]

Manufacturers of Steel Appleby Iron Co. Dorman Long, Lauartshore & Co (Letter for Record S)

Total Heating Surface of Boilers 5710 # Is forced draught fitted No Coal ~~oil~~ fired Coal

No. and Description of Boilers 2 Single Ended Working Pressure 200

Tested by hydraulic pressure to 350 Date of test 6.3.31 No. of Certificate 2004 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 56.5 # No. and Description of safety valves to each boiler ✓

Area of each set of valves per boiler { per Rule ✓ as fitted ✓ Pressure to which they are adjusted ✓ Are they fitted with easing gear —

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 ✓ Is oil fuel carried in the double bottom under boilers —

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers 13-9" ✓ Length 11-0" ✓ Shell plates: Material S Tensile strength 29-33 ✓

Thickness 17/32" ✓ Are the shell plates welded or flanged ✓ Description of riveting: circ. seams { end DR ✓ inter. —

long. seams TRDBS ✓ Diameter of rivet holes in { circ. seams 19/32" ✓ long. seams 17/32" ✓ Pitch of rivets { 3.829 ✓ 8 5/16" ✓

Percentage of strength of circ. end seams { plate 66.6 rivets 43.73 } Percentage of strength of circ. intermediate seam { plate 85.33 rivets 85.9 } Working pressure of shell by Rules 202

Percentage of strength of longitudinal joint { plate 85.9 rivets 84.8 } Thickness of butt straps { outer 15/16" ✓ inner 11/16" ✓ } No. and Description of Furnaces in each Boiler 3 Deighton

Material S Tensile strength 26-30 ✓ Smallest outside diameter 3-6 3/16" ✓

Length of plain part { top ✓ bottom ✓ } Thickness of plates { crown 19/32" ✓ bottom ✓ } Description of longitudinal joint weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 205

End plates in steam space: Material S Tensile strength 26-30 ✓ Thickness 17/32" ✓ Pitch of stays 18 1/4" & 16 1/2" ✓

How are stays secured DN Working pressure by Rules 204

Tube plates: Material { front S back S } Tensile strength { 26-30 ✓ } Thickness { 15/16" ✓ 25/32" ✓ }

Mean pitch of stay tubes in nests 10.375" Pitch across wide water spaces 14 3/4" ✓ Working pressure { front 271 back 203 }

Girders to combustion chamber tops: Material S Tensile strength 29.33 ✓ Depth and thickness of girder at centre 10 3/4" (2) ✓ Length as per Rule 2-8 7/32" ✓ Distance apart 10 7/8" ✓ No. and pitch of stays in each 3 at 4 3/4" ✓ Working pressure by Rules 214 Combustion chamber plates: Material S

Tensile strength 26.30 ✓ Thickness: Sides 23/32" ✓ Back 11/16" ✓ Top 23/32" ✓ Bottom 23/32" ✓

Pitch of stays to ditto: Sides 10 1/2" & 15/16" ✓ Back 8 3/4" & 8 1/16" ✓ Top 10 7/8" & 7 3/4" ✓ Are stays fitted with nuts or riveted over 9 nuts

Working pressure by Rules 209 Front plate at bottom: Material S Tensile strength 26-30 ✓

Thickness 15/16" ✓ Lower back plate: Material S Tensile strength 26-30 ✓ Thickness 27/32" ✓

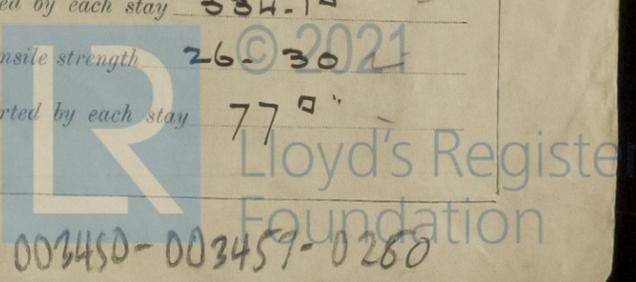
Pitch of stays at wide water space 14 1/2" Are stays fitted with nuts or riveted over 9 nuts

Working Pressure 208 Main stays: Material S Tensile strength 28-32

Diameter { At body of stay, 3" ✓ or Over threads ✓ } No. of threads per inch 6 ✓ Area supported by each stay 334.15"

Working pressure by Rules 215 Screw stays: Material S Tensile strength 26-30

Diameter { At turned off part, 1 5/8" ✓ or Over threads ✓ } No. of threads per inch 6 Area supported by each stay 77"



Working pressure by Rules 200 Are the stays drilled at the outer ends 90 Margin stays: Diameter ^{At turned off part,} 17/8" 2"
 No. of threads per inch 6 Area supported by each stay 101.2" Working pressure by Rules 210
 Tubes: Material Iron External diameter ^{Plain} 3 1/4" Thickness ^{Stay} 3/8" 11/32" 5/16" No. of threads per inch 9
 Pitch of tubes 4 3/8" + 4 1/2" Working pressure by Rules 209 Manhole compensation: Size of opening in
 shell plate 16 1/2" + 20 1/2" Section of compensating ring 2 11 3/4" + 2 4 3/4" 1 1/2" No. of rivets and diameter of rivet holes 36 at 1 3/8"
 Outer row rivet pitch at ends 9 13/16" Depth of flange if manhole flanged 4" Steam Dome: Material -
 Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
 Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint ^{Plate} _____
 Internal diameter _____ Working pressure by Rules 200 lbs 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 ^{Tubes} _____
 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. LIMITED.
 Director. Manufacturer.

Dates of Survey ^{During progress of} (1930 Dec. 4-8-9-14-19-30 (1931) Jan. 9-12-14-19-21-26-28) Are the approved plans of boiler _____ forwarded herewith Yes
 while building ^{During erection on} Feb. 3-5-12-17-19-23-27- Mar. 6
 board vessel - - - Total No. of visits 21

Is this Boiler a duplicate of a previous case _____ If so, state Vessel's name and Report No. _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have
been built under Special Survey in accordance
with the approved plans. The workmanship &
material are of good quality.
These Boilers have been shipped to Troon at
selected port they will be fitted on board

Checked from
 Cal. Plan
 C.B.

Survey Fee ... £ 24. 14. - When applied for, 9th MARCH 1931
 Travelling Expenses (if any) £ - : - : - When received, 11th MARCH 1931

W. J. Gordon-Maclean
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 MAR 1931

Assigned TRANSMIT TO LONDON

WJM
 + L.M.C. 5.31 on
 Gen. Rpt. 51480.



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