

REPORT ON BOILERS.

No. 61123

Received at London Office

NOV 1 1939

Date of Report 12th May 1939 When handed in at Local Office 22nd May 1939 Port of Glasgow
 Date, First Survey 6th Oct 1938 Last Survey 12th May 1939
 No. in Survey held at Glasgow
 Book. (Number of Visits 24) Gross 620
 on the Boiler No 38-11 T.W. Sc. Toq "T.H. WATERMEYER" Tons Net
 Built at Glasgow By whom built A & J Inglis Yard No. 1021 When built 1939
 Engines made at Renfrew By whom made Lobnitz & Co Engine No. 1013 When made 1939
 Boilers made at Glasgow By whom made Barclay Curle Boiler No. 38/11 When made 1939
 Indicated Horse Power 397 Owners Union port. of S. Africa Port belonging to Capetown.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S ✓)
 Total Heating Surface of Boilers 7508 sq ft Is forced draught fitted Coal or Oil fired
 No. and Description of Boilers 4 - S.E. multitubular 20380 Working Pressure 200 lbs
 Tested by hydraulic pressure to 350 lbs Date of test 27.4.39 No. of Certificate 20776 Can each boiler be worked separately
 Area of Firegrate in each Boiler 63 sq ft 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 14'-0" Length 10'-6" Shell plates: Material Steel Tensile strength 29/33
 Thickness 1 1/4" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R. Lap
 Long. seams T.R.D.B.S Diameter of rivet holes in {circ. seams 15/16 Pitch of rivets {3.797
 Percentage of strength of circ. end seams {plate 65.43 rivets 45.22 Percentage of strength of circ. intermediate seam {plate rivets
 Percentage of strength of longitudinal joint {plate 85.41 rivets 89.42 combined 88.71 Working pressure of shell by Rules 202 lbs
 Thickness of butt straps {outer 31/32 inner 13/32 No. and Description of Furnaces in each Boiler 3 - Deighton
 Material Steel Tensile strength 26/30 Smallest outside diameter 43 1/4"
 Length of plain part {top Thickness of plates {crown 19/32 Description of longitudinal joint welded
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 200 lbs
 End plates in steam space: Material Steel Tensile strength 26/30 Thickness 15/16 Pitch of stays 20 x 19 1/2
 How are stays secured Double Nuts Working pressure by Rules 203 lbs.
 Tube plates: Material {front Steel Tensile strength 26/30 Thickness {27/32
 Mean pitch of stay tubes in nests 10 15/16 Pitch across wide water spaces 14 1/4 Working pressure {front 202 lbs back 276 lbs
 Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder
 At centre 9 1/2 x 12 27/32 Length as per Rule 32 15/32 Distance apart 10 No. and pitch of stays
 In each 30 x 8 Working pressure by Rules 222 lbs Combustion chamber plates: Material Steel
 Tensile strength 26/30 Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 3/4
 Pitch of stays to ditto: Sides 8 x 10 Back 8 3/4 x 9 Top 8 x 10 Are stays fitted with nuts or riveted over Nuts
 Working pressure by Rules 202 lbs Front plate at bottom: Material Steel Tensile strength 26/30
 Thickness 27/32 Lower back plate: Material Steel Tensile strength 26/30 Thickness 27/32
 Pitch of stays at wide water space 14 1/4 Are stays fitted with nuts or riveted over Nuts
 Working Pressure 203 lbs Main stays: Material Steel Tensile strength 28/32
 Diameter {At body of stay, 3 1/4 No. of threads per inch 6 Area supported by each stay 3900
 Working pressure by Rules 203 lbs Screw stays: Material Steel Tensile strength 26/30
 Diameter {At turned off part, 1 3/4 No. of threads per inch 9 Area supported by each stay 800

Working pressure by Rules 201 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part. or Over threads 17/8 ✓

No. of threads per inch 9 Area supported by each stay 101 1/2 Working pressure by Rules 84.56 No. of threads per inch 9

Tubes: Material L.W.W.S. External diameter { Plain 3 1/4 Thickness { 3/16 + 3/8 No. of threads per inch 9

Pitch of tubes 4 3/8 x 4 3/8 Working pressure by Rules 230 lbs. Manhole compensation: Size of opening 40 1/2

shell plate 20 1/4 x 16 1/4 Section of compensating ring 21 x 1 1/4 No. of rivets and diameter of rivet holes 40 2 1/16

Outer row rivet pitch at ends 9 Depth of flange if manhole flanged 4 McNeill Steam Dome: Material Nil

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 rivets _____

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 Steel forgings Steel castings Internal diameter and thickness of tubes _____

Number of elements _____ Material of tubes _____ Tensile strength _____ Thickness _____ Can the superheater be shut off from the boiler _____

Material of headers _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____

the boiler be worked separately _____ Are the safety valves fitted with easing gear _____ Working pressure as _____

Area of each safety valve _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure _____

Rules _____ and after assembly in place _____ Are drain cocks _____

tubes _____ forgings and castings _____ valves fitted to free the superheater from water where necessary _____



The foregoing is a correct description,
Alexander MacNeill Manufacture
Chief Draughtsman

Dates of Survey { During progress of work in shops - - - 1938 Oct: 6-11-18-20 Nov: 20 Dec: 5-9-23-30 (1939) Jan: 16-26-30 Feb: 3-21-28 Are the approved plans of boiler and superheater forwarded herewith yes (If not state date of approval.)

while building { During erection on board vessel - - - Mar: 6-13-22-28 Apr: 11-20-27 Total No. of visits 24

May: 4-12

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. 44 N° 38-10 86 + 10 N°

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under Special Survey in accordance with the Rules and approved plan

Materials and workmanship are good

These Boilers have been built to the order of Messrs Robt & Co and are intended for Messrs A & J Inglis & Co N° 1021.

Rob
22/5/39

Survey Fee ... £ 37 : 10 : 0 When applied for, 23 MAY 1939

Travelling Expenses (if any) £ : : When received, 8-7-1939 (per London)

G. H. Macdonald
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 23 MAY 1939

Assigned TRANSMIT TO LONDON

GLASGOW 31 OCT 1939
SEE ACCOMPANYING MACHINERY REPORT
Lloyd's Register Foundation