

REPORT ON BOILERS.

No. 23337

24 JUL 1946

Received at London Office

Date of writing Report 11th July 1946 When handed in at Local Office 13th July 1946 Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 28th July 1945 Last Survey 25th June 1946

eg. Book. GREENOCK (Number of Visits.....) Tons } Gross 7229
Net 4768

on the Sing. Sc. "NEOTHAUMA"

aster. Built at GLASGOW By whom built Blythswood S.B.C. Yard No. 82 When built 1946

engines made at GREENOCK By whom made JOHN G. KINCAID & CO. L^o Engine No. 15165 When made 1946

oilers made at do By whom made do Boiler No. 15165 When made 1946

ominal Horse Power 502 503 Owners ANGLO SAXON PETROLEUM CO. L^o Port belonging to London

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles L^o (Letter for Record S)

Total Heating Surface of Boilers 4192⁶ Is forced draught fitted Yes Coal or Oil fired or Exh. gas

No. and Description of Boilers Two cylindrical Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 27.2.46 No. of Certificate 2415 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 6.71⁰ No. and Description of safety valves to each boiler Two 2 1/4" double opening 141

Area of each set of valves per boiler per Rule 6.71⁰ Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

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 Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Boiler on tween deck Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12' 9 1/16" Length 12' 3" Shell plates: Material S Tensile strength 29/33 tons

Thickness 1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end DR
inter DR

g. seams TR DBS Diameter of rivet holes in circ. seams 1 1/32" Pitch of rivets 3.289"
long. seams 1 1/32"

Percentage of strength of circ. end seams plate 66.74 Percentage of strength of circ. intermediate seam plate 7
rivets 43.9

Percentage of strength of longitudinal joint plate 85.27 Working pressure of shell by Rules 181.08 lbs
rivets 86

Thickness of butt straps outer 25/32" No. and Description of Furnaces in each Boiler Two Duglow corrugated
inner 29/32"

Material S Tensile strength 26/30 tons Smallest outside diameter 3' 7 1/8"

Length of plain part top 9 1/16" Thickness of plates bottom 9 1/16" Description of longitudinal joint Weld

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 20 x 21"

Stays in steam space: Material S Tensile strength 26/30 tons Thickness 1 1/32" Pitch of stays 20 x 21"
WP = 201

Are stays secured DN & loose washers Working pressure by Rules 15 1/16"

Stays plates: Material front S Tensile strength 26/30 tons Thickness 13 1/16"

pitch of stay tubes in nests 10" Pitch across wide water spaces 13 1/2" Working pressure front 15 1/16"
back 13 1/16"

Stays to combustion chamber tops: Material S Tensile strength 29/33 tons Depth and thickness of girder

Centre 10 x 1 1/2" Length as per Rule 2' 11 1/2" Distance apart 10 1/2" No. and pitch of stays

Each Three 8 1/4" pitch Working pressure by Rules Combustion chamber plates: Material S

Stays strength 26/30 tons Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 3/4"

Stays of stays to ditto: Sides 8 1/4 x 7 1/4" Back 7 3/4 x 7 3/4" Top 10 1/2 x 8 1/4" Are stays fitted with nuts or riveted over Mangin Nuts
other riveted

Working pressure by Rules Front plate at bottom: Material S Tensile strength 26/30 tons

Thickness 15 1/16" Lower back plate: Material S Tensile strength 26/30 Thickness 25 1/32"

Stays at wide water space 14 x 7 3/4" Are stays fitted with nuts or riveted over Nuts

Working pressure Main stays: Material S Tensile strength 28/32 tons

Shipping meter At body of stay 3 1/2" No. of threads per inch 6 Area supported by each stay 26/30 tons

Working pressure by Rules Screw stays: Material S Tensile strength 26/30 tons

meter At turned off part 1 1/2" No. of threads per inch 9 Area supported by each stay

Working pressure by Rules... Are the stays drilled at the outer ends... No Margin stays: Diameter { At turned off part... or... Over threads... 1/8"

No. of threads per inch... 9 Area supported by each stay... Working pressure by Rules... Tubes: Material *Hot finished steel* External diameter { Plain... 2 1/2 Stay... 3 1/2 Thickness { 7/16 9/32 1/32 No. of threads per inch... 9

Pitch of tubes... 37 1/8 x 3 3/4 Working pressure by Rules... Manhole compensation: Size of opening... shell plate... 16 1/2 x 20 1/2 Section of compensating ring... 32 3/4 x 28 3/4 x 1 1/16 No. of rivets and diameter of rivet holes... 46 - 1 1/32

Outer row rivet pitch at ends... 7" Depth of flange if manhole flanged... Steam Dome: Material... Tensile strength... Thickness of shell... Description of longitudinal joint... Plate... Rivets... Diameter of rivet holes... Pitch of rivets... Percentage of strength of joint... Thickness of crown... No. and diameter... Internal diameter... Working pressure by Rules... Working pressure by Rules... stays... Inner radius of crown... Diameter of rivet holes and p... How connected to shell... Size of doubling plate under dome... of rivets in outer row in dome connection to shell...

Type of Superheater... Manufacturers of { Tubes... Steel forgings... Steel castings... Number of elements... Material of tubes... Internal diameter and thickness of tubes... Material of headers... Tensile strength... Thickness... Can the superheater be shut off... the boiler be worked separately... Is a safety valve fitted to every part of the superheater which can be shut off from the boiler... Working pressure as... Area of each safety valve... Are the safety valves fitted with easing gear... Hydraulic test press... Rules... Pressure to which the safety valves are adjusted... Are drain cock... tubes... forgings and castings... and after assembly in place... 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... *Yes*

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED,
Robert Green Manufact

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

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)... Total No. of visits... *1*

Is this Boiler a duplicate of a previous case... *Yes* If so, state Vessel's name and Report No. *GK 22991 Nuttallia*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These boilers have been constructed under special survey in accordance with the Rules & approved plans. The materials & workmanship are sound & good. The safety valves have been adjusted under steam for a working pressure of 180 lbs/sq in. For recommendations please see machinery report.

Survey Fee ... £ Travelling Expenses (if any) £ When applied for... 19... When received... 19...

See Machinery report

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute... Assigned... GLASGOW 23 JUL 1946 SEE ACCOMPANYING MACHINERY REPORT.