

## REPORT ON BOILERS.

No. 18471.

Received at London Office

2 - APR 1948

Writing Report 25th Mar. 1948. When handed in at Local Office 25th Mar. 1948. Port of MIDDLESBROUGH.

in Survey held at STOCKTON. Date, First Survey 20th Jan. Last Survey 19th Mar. 1948.

on the (Number of Visits 7.) Tons { Gross Net

at By whom built Yard No. When built

and diam. nes made at By whom made Engine No. When made

rs made at STOCKTON By whom made Stockton Chemical Engineers & Riley Boilers Boiler No. 7046 When made 1948

holes a Owners Port belonging to

inal Horse Power

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co. Ltd. (Letter for Record S)

Heating Surface of Boilers 2720 Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers 1 S.B. Multitubular Marine Working Pressure 150 lbs per sq. in.

ed by hydraulic pressure to 275 lbs Date of test 19.3.48. No. of Certificate 7235 Can each boiler be worked separately

a of Firegrate in each Boiler No. and Description of safety valves to each boiler

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

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Manuf. blest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

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

rest internal dia. of boilers 14'3" Length 11'7.11/16" Shell plates: Material Steel Tensile strength 29 - 33

ickness 31/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end DR.L. inter.

seams TR. DBS Diameter of rivet holes in { circ. seams 1.1/16" Pitch of rivets { 3.38" 7.7/16"

centage of strength of circ. end seams { plate 67.2% rivets 43.1 Percentage of strength of circ. intermediate seam { plate - rivets -

centage of strength of longitudinal joint { plate 85.65 rivets 91.5

sati thickness of butt straps { outer 3/4" inner 7/8" No. and Description of Furnaces in each Boiler 3 Deighton

erial Steel Tensile strength 26 - 30 Smallest outside diameter 3' - 5 1/4"

gth of plain part { top Thickness of plates { crown 1/2" bottom Description of longitudinal joint Welded

ensions of stiffening rings on furnace or c.c. bottom

plates in steam space: Material Steel Tensile strength 26-30 Thickness 1" Pitch of stays 19 x 17 1/2"

are stays secured Double nuts and washers.

plates: Material { front Steel Tensile strength { 26.30 Thickness { 7/8" 3/4" back

on pitch of stay tubes in nests 11.1/16" Pitch across wide water spaces 13 1/2"

ders to combustion chamber tops: Material Steel Tensile strength 28 - 32 Depth and thickness of girder

entre 7 1/2 - 2 @ 5/8" Length as per Rule 2' - 6 1/2" Distance apart 9" No. and pitch of stays

ach 2 - 10" Combustion chamber plates: Material Steel

ile strength 26 - 30 Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 21/32"

ch of stays to ditto: Sides 9 x 10" Back 9 1/2 x 9 1/2" Top 10 x 9" Are stays fitted with nuts or riveted over nuts

nt plate at bottom: Material Steel Tensile strength 26 - 30

ckness 7/8" Lower back plate: Material Steel Tensile strength 26 - 30 Thickness 13/16"

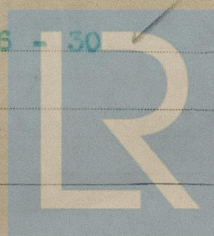
ch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts

n stays: Material Steel Tensile strength 28.32

meter { At body of stay, or Over threads 2 1/2" No. of threads per inch 6

ew stays: Material Steel Tensile strength 26 - 30

meter { At turned off part, or Over threads 1.5/8" No. of threads per inch



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Are the stays drilled at the outer ends ☒ No

Margin stays: Diameter { At turned off part, or Over threads 1 1/2" ✓

No. of threads per inch 9 ✓

Tubes: Material HR. Weldless S External diameter { Plain 2 1/4" Stay 2 3/8" Thickness { 9 W.G. 5/16" ✓ No. of threads per inch 9 ✓

Pitch of tubes 3 3/4" x 3 5/8" Manhole compensation: Size of opening in Book

shell plate 21" x 17" Section of compensating ring 7" x 1 1/2" ✓ No. of rivets and diameter of rivet holes 48 - 1.1/16" ✓

Outer row rivet pitch at ends 7 1/2" ✓ Depth of flange if manhole flanged - 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 Thickness of crown No. and diameter of stays

Inner radius of crown

How connected to shell Size of doubling plate under dome Diameter of rivet holes and 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 Thickness Can the superheater be shut off from the boiler

Material of headers Tensile strength

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

Pressure to which the safety valves are adjusted Hydraulic test pressure

tubes forgings and castings and after assembly in place Are drain 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,  
Steekton Chemical Engineers & Riley Bolters Ltd. Manufactured

Dates of Survey { During progress of work in shops - - - March 3, 9, 1948, 24, 29, Feb. (9, 24, 29, 1948) ✓  
while building { During erection on board vessel - - - 9, 19. ✓

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 20-1 ✓

Total No. of visits 7. ✓

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.)

This boiler has been built under special survey and in accordance with the rule requirements and approved plan.

The materials and workmanship are good and on completion the boiler was hydraulically tested to 275 lbs per sq. inch and found satisfactory.

This boiler is being despatched to Sweden for Gotaverken's Contract No. 628.

Survey Fee ... £ 45 : 8 : 0 When applied for, 1.4. 19 48.

Travelling Expenses (if any) £ : : When received, 19

L. W. Smith  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FEB. 28 JAN 1949

Assigned For unit see H. Rpt