

REPORT ON BOILERS.

No. 18490.

Received at London Office

22 APR 1948

of writing Report. 14th Apl. 1948. When handed in at Local Office 20th Apr. 1948. Port of MIDDLESBROUGH.

Survey held at STOCKTON. Date, First Survey 20th Jan. Last Survey 13th April, 1948

(Number of Visits 9.) Tons { Gross.....
Net.....

Built at By whom built Yard No. When built

Engine No. When made

By whom made Stockton C.E. & R.B. Co., Ltd. Boiler No. 7047 When made 1948.

Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Frodingham Steel Co., Ltd. (Letter for Record 8.)

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

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

Tested by hydraulic pressure to 275 lbs Date of test 13.4.48. No. of Certificate 7238 Can each boiler be worked separately

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.....

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

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

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

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

Are the shell plates welded or flanged No. Description of riveting: circ. seams { end DR. L.S.
inter.....

seams TR. DBS. Diameter of rivet holes in { circ. seams 1.1/16"
long. seams 1.1/16" Pitch of rivets { 3.58"
7.7/16"

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

Percentage of strength of longitudinal joint { plate 85.65
rivets 91.5 Working pressure of shell by Rules 153 lbs per sq. inch.

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

Material Steel Tensile strength 26.30 Smallest outside diameter 3 - 5 1/2"

Thickness of plates { crown 1/2"
bottom..... Description of longitudinal joint Welded.

Working pressure of furnace by Rules 174 lbs per sq. inch.

plates in steam space: Material Steel Tensile strength 26.30 Thickness 1" Pitch of stays 19 x 1 1/2"

Working pressure by Rules 167 lbs per sq. in.

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

Pitch of stay tubes in nests 11 1/16" Pitch across wide water spaces 13 1/2" Working pressure { front 185 lbs per sq. in.
back 164 " " " "

Working pressure by Rules 162 lbs per sq. in. Front plate at bottom: Material steel Tensile strength 26-30

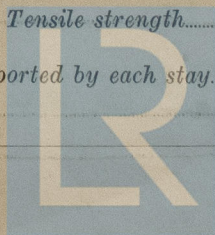
Lower back plate: Material steel Tensile strength 26.30 Thickness 13/16"

Working pressure by Rules 177 lbs per sq. in. Main stays: Material steel Tensile strength 28.32

At body of stay or Over threads 2 1/2" No. of threads per inch 6 Area supported by each stay 332.5 sq. in.

Working pressure by Rules 166 lbs per sq. in. Screw stays: Material steel Tensile strength 26.30

At turned off part or Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay 92.625



Lloyd's Register
Foundation

5-A 18490.

Working pressure by Rules. 164 lbs per sq. in. Are the stays drilled at the outer ends. No. Margin stays: Diameter { At turned off part, 1 1/2" or Over threads, 1 1/2" Working pressure by Rules. 162 lbs per sq. in.

No. of threads per inch. 9 Area supported by each stay. 112.125 sq. in. Working pressure by Rules. 9 W.G. No. of threads per inch. 9

Tubes: Material. H.R. weldless External diameter { Plain. 2 1/2" Stay. 2 1/2" Thickness { 5/16" No. of threads per inch. 9

Pitch of tubes. 3 3/4 x 3 5/8 Working pressure by Rules. 230 lbs per sq. in. Manhole compensation: Size of open Book. 599

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" 599

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. Plate. Rivets. Engines made

Diameter of rivet holes. Pitch of rivets. Percentage of strength of joint. Thickness of crown. No. and diam. raters made

Internal diameter. Working pressure by Rules. Working pressure by Rules. Diameter of rivet holes and intended

stays. Inner radius of crown. Size of doubling plate under dome. How connected to shell. 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. Can the superheater be shut

Number of elements. Material of tubes. Tensile strength. Thickness. Working pressure. the boiler be worked separately. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler. k Shaft, c

Area of each safety valve. Are the safety valves fitted with easing gear. Hydraulic test p

Rules. Pressure to which the safety valves are adjusted. and after assembly in place. Are drain wheel Sha

tubes. forgings and castings. 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,

Dates of Survey while building { During progress of work in shops - - 1948. Jan. 20, 24, 29. Mar. 3, 9, 19, 23. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Apr. 6, 13. Total No. of visits. 9.

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 approved plan.

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

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

Survey Fee ... £ 45 : 8 : 0 } When applied for, 21.4.19. 48.

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

L. Loman Stuart
Engineer Surveyor to Lloyd's Register of S

Committee's Minute
Assigned For audit see J.S. Rpt