

REPORT ON BOILERS.

No. 85466

Received at London Office 18 MAR 1930

Date of writing Report 19 1930 When handed in at Local Office 14/31 10 30 Port of Newcastle-on-Tyne

No. in Reg. Book. Wallsend-on-Tyne Date First Survey 16 July 129 Last Survey 4 March 1930

on the New Steel S.S. "Marathon" (Number of Visits 7208 Gross Tons 7208 Net Tons 4358)

Master Wallsend Built at Wallsend By whom built Swanley & Co. Ltd Yard No. 1421 When built 1930

Engines made at Wallsend-on-Tyne By whom made Wallsend Slipways & E.C. Ltd Engine No. 897 When made 1930

Boilers made at Wallsend-on-Tyne By whom made Wallsend Slipways & E.C. Ltd Boiler No. 897 When made 1930

Nominal Horse Power 605 Owners _____ Port belonging to _____

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

Manufacturers of Steel Steel Company of Scotland Ltd. (Letter for Record S.)

Total Heating Surface of Boilers 9186 sq ft Is forced draught fitted Yes Coal or Oil fired oil

No. and Description of Boilers Three single ended. Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 9-12-29 No. of Certificate H 11 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 45 1/2 sq ft No. and Description of safety valves to each boiler Two spring loaded, high lift.

Area of each set of valves per boiler 14.14 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between ~~boilers~~ uptakes and bunkers or ~~woodwork~~ 2'-0" Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 16'-6 1/4" Length 12'-0" Shell plates: Material Steel Tensile strength 30 to 34 tons

Thickness 1 3/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R inter. = long. seams T.R.D. B.S. Diameter of rivet holes in {circ. seams 1 1/32" Pitch of rivets { 3.92" 9 1/4"

Percentage of strength of circ. end seams {plate 65.4 rivets 49 Percentage of strength of circ. intermediate seam {plate 85.4 rivets 85.8 Working pressure of shell by Rules 182.5 lbs.

Percentage of strength of longitudinal joint {plate 85.4 rivets 88.8 combined 88.8

Thickness of butt straps {outer 3/32" inner 1/32" No. and Description of Furnaces in each Boiler 1 Corrugated (Deighton)

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

Length of plain part {top 17 1/32" bottom 17 1/32" Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 186.1 lbs

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 1/4" Pitch of stays 14 x 22

How are stays secured D. nuts. Working pressure by Rules 189 lbs.

Tube plates: Material {front Steel back Steel Tensile strength { 26 to 30 tons Thickness { 15/16 x 1 1/4" 3/4"

Mean pitch of stay tubes in nests 13 1/4 x 10 1/8" Pitch across wide water spaces 13 1/4 x 1 1/4" Working pressure {front 192 lbs back 229 lbs.

Girders to combustion chamber tops: Material Steel Tensile strength 28 to 32 tons Depth and thickness of girder 4 1/2"

at centre 2 @ 2 1/4 x 8" Length as per Rule 2'-11" Distance apart 4 1/2" No. and pitch of stays Steel

in each 2 @ 11" Working pressure by Rules 181 lbs. Combustion chamber plates: Material Steel

Tensile strength 26 to 30 tons Thickness: Sides 1/16" Back 2 1/32" Top 1/16" Bottom 1/16"

Pitch of stays to ditto: Sides 11 x 4 5/8" Back 8 7/8 x 8 7/8" Top 11 x 4 1/2" Are stays fitted with nuts or riveted over Nuts

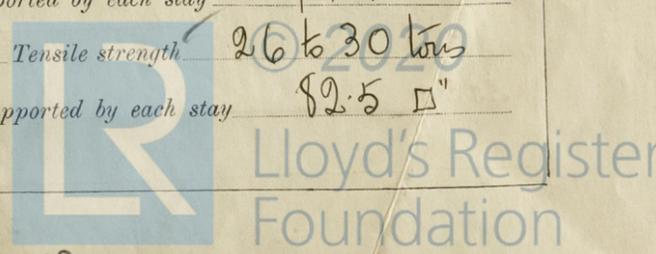
Working pressure by Rules 182.5 lbs. Front plate at bottom: Material Steel Tensile strength 26 to 30 tons

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26 to 30 tons Thickness 1/8"

Pitch of stays at wide water space 13 1/4 x 8 7/8" Are stays fitted with nuts or riveted over Nuts

Working Pressure 245 lbs. Main stays: Material Steel Tensile strength 28 to 32 tons

Diameter {At body of stay, 3 1/4" No. of threads per inch 6 Area supported by each stay 3 1/4 sq" or 2 1/5 lbs. Screw stays: Material Steel Tensile strength 26 to 30 tons Over threads 1 5/8" No. of threads per inch 9 Area supported by each stay 82.5 sq"



Working pressure by Rules 184 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 1 1/4"
 No. of threads per inch 9 Area supported by each stay 98.2 sq" Working pressure by Rules 186 lbs.
 Tubes: Material W. Iron External diameter 2 1/2" Thickness 5/16 & 3/8" No. of threads per inch 9
 Pitch of tubes 3 3/4 x 3 5/8, 3 7/8 x 3 5/8 Working pressure by Rules 191 lbs. Manhole compensation: Size of opening in
 shell plate 16" x 20" Section of compensating ring 2 1/4" x 1 9/32" No. of rivets and diameter of rivet holes 42 @ 1 1/32"
 Outer row rivet pitch at ends 9 1/4" Depth of flange if manhole flanged 3 9/32" Steam Dome: Material Iron
 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 _____ Thickness of crown _____ 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 None Manufacturers of Tubes
 Number of elements _____ Material of tubes _____ Steel castings _____
 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 Yes.

The foregoing is a correct description,
 FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED. Director Manufacturer.

Dates of Survey See Indy Report Are the approved plans of boiler and superheater forwarded herewith Yes.
 (If not state date of approval.)
 Total No. of visits _____

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, Materials
workmanship good. Hydraulic tests satisfactory. Examined
under steam & Safety valves adjusted.

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

William Butler
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 28 MAR 1930
 Assigned See other 3E Rpt.

