

REPORT ON BOILERS.

No. 20259.

23 MAY 1950

Received at London Office

Date of writing Report 18th MAY 1950 When handed in at Local Office 22nd MAY 1950 Port of SOUTHAMPTON.No. in Reg. Book. Survey held at SOUTHAMPTON Date, First Survey 22nd FEB. 1949 Last Survey 20th APRIL 1950

13484 on the T.S.T.S. ISLE OF SARK. (Number of Visits 11.) Tons Gross 2188 Net 831.

Master Built at DUMBARTON By whom built W. DENNY & BROS. LD Yard No. 1257 When built 1932.

Engines made at DUMBARTON By whom made W. DENNY & BROS. LD Engine No. 1014 When made 1932.

Boilers made at DUMBARTON By whom made W. DENNY & BROS. LD Boiler No. When made 1932.

Nominal Horse Power 1086 Owners BRITISH TRANSPORT COMMISSION Port belonging to SOUTHAMPTON.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record S.)

Total Heating Surface of Boilers 2470 SQ. FT. Is forced draught fitted YES Coal or Oil fired OIL

No. and Description of Boilers ONE SCOTCH MARINE RETURN TUBE Working Pressure 250 lbs/sq"

Tested by hydraulic pressure to 425 lbs/sq Date of test No. of Certificate Can each boiler be worked separately

Area of FURNACES in each Boiler 268 sq' No. and Description of safety valves to each boiler 2- 2 1/4" IMPROVED HIGH LIFT DOUBLE SEATING

Area of each set of valves per boiler per Rule AS APPROVED as fitted 7.9522 sq' Pressure to which they are adjusted 250 lbs/sq 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 or uptakes and bunkers or woodwork 12" Is oil fuel carried in the double bottom under boilers NO

Smallest distance between shell of boiler and tank top plating 13" Is the bottom of the boiler insulated NO

Largest internal dia. of boiler 15'-0" Length 11'-0" Shell plates: Material STEEL Tensile strength 30-34 TONS/sq"

Thickness 1 37/64" Are the shell plates welded or flanged Description of riveting: circ. seams end DOUBLE BUTT LAP inter

long. seams TRIPLE RIVETED DOUBLE BUTT STRAP Diameter of rivet holes in circ. seams 1 7/8" Pitch of rivets 4.017" long. seams 1 7/8" 11.0"

Percentage of strength of circ. end seams plate 59.5% rivets 50.25% Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 85.227% rivets 85.867% Working pressure of shell by Rules AS APPROVED

combined 87.62%

Thickness of butt straps outer 1 13/64" inner 1 31/64" No. and Description of Furnaces in each Boiler 3- MORISON TYPE

Material STEEL Tensile strength 26-30 TONS/sq" Smallest outside diameter 3'-10 1/2"

Length of plain part top Thickness of plates crown 57/64" bottom Description of longitudinal joint WELDED

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules AS APPROVED

End plates in steam space: Material STEEL Tensile strength 26-30 TONS/sq" Thickness 1 1/4" Pitch of stays 1 7/8" x 19"

How are stays secured DOUBLE NUTS Working pressure by Rules AS APPROVED

Tube plates: Material front STEEL Tensile strength 26-30 TONS/sq" Thickness front 6 3/4" back 4 9/16"

Mean pitch of stay tubes in nests 7" x 7 1/2" & 7" x 11 1/4" Pitch across wide water spaces 13 1/2" Working pressure front back AS APPROVED

Girders to combustion chamber tops: Material STEEL Tensile strength 28-32 TONS/sq" Depth and thickness of girder

at centre 8 1/2" CENTRE C.C. 9 1/4" WING C.C. length as per Rule 2'-10 1/2" 2'-9" width Distance apart 7 1/8" WING 6 1/4" CENTRE C.C. No. and pitch of stays

in each 3- 7 3/4" Working pressure by Rules AS APPROVED Combustion chamber plates: Material STEEL

Tensile strength 26-30 TONS/sq" Thickness: Sides 43/64" Back 21/32" Top 43/64" Bottom 15/16"

Pitch of stays to ditto: Sides 7 1/4" x 8 5/16" Back 7 1/2" x 7 3/4" Top WING 7 1/8" x 7 1/8" CENTRE C.C. 6 1/2" x 7 1/8" Are stays fitted with nuts or riveted over NUTS

Working pressure by Rules AS APPROVED Front plate at bottom: Material STEEL Tensile strength 26-30 TONS/sq"

Thickness 63/64" Lower back plate: Material STEEL Tensile strength 26-30 TONS/sq" Thickness 57/64"

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

Working pressure AS APPROVED Main stays: Material STEEL Tensile strength 28-32 TONS/sq"

Diameter At body of stay 2 7/8" No. of threads per inch 9 Area supported by each stay 14 7/8" x 19"

Over threads 3 3/8"

Working pressure by Rules AS APPROVED Screw stays: Material STEEL Tensile strength 26-30 TONS/sq"

Diameter At turned off part 1 1/2", 1 5/8" No. of threads per inch 9 Area supported by each stay VARIOUS

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Working pressure by Rules AS APPROVED Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part... 1 1/8" & 2 1/8" }
No. of threads per inch 9 Area supported by each stay VARIOUS Working pressure by Rules AS APPROVED
Tubes: Material LAP WELDED IRON External diameter { Plain 2 1/2" } Thickness { 8 W.G. } No. of threads per inch 9
Pitch of tubes 3 1/2" x 3 3/4" Working pressure by Rules AS APPROVED Manhole compensation: Size of opening in
shell plate 22" x 18" Section of compensating ring 1 3/4" x 3-1 1/2" No. of rivets and diameter of rivet holes 36 - 1 3/8"
Outer row rivet pitch at ends 11" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material ✓
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
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 ✓
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 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 ✓ forgings and 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 ✓

The foregoing is a correct description,

Manufacturer

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

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 NO If so, state Vessel's name and Report No. ✓

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.)

This boiler has been examined throughout and its scantlings checked and found to be in accordance with the approved drawing. The workmanship is good and the materials have been tested to N.O.T. requirements.

Survey Fee £ : : }

When applied for.....19.....

Travelling Expenses (if any) £ : : }

When received.....19.....

B. H. Lamb

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 16 JUN 1950

Assigned

see minute on Rpt 9



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