

Rpt. 5a.

REPORT ON BOILERS.

Sta. N^o. 34597

Hull No. 18080.

JUL 1946

Received at London Office

29 JUN 1946 19 DEC 1946

Date of writing Report 24th June 1946 When handed in at Local Office 27th June 1946 Port of Middlesbrough L.No. in Surrey held at Stockton n. Sea. Date, First Survey 14th Nov. 1945. Last Survey 21st June 1946

on the BRITISH HOLLY (Number of Visits 21) Gross 8582 Tons Net 4919

Built at Sunderland By whom built L. J. Laming & Sons L^d Yard No. 440 When built 1946

Engines made at Sunderland By whom made Wm. Douglas & Son Engine No. 256 When made 1946

Boilers made at Stockton n. Sea. By whom made Stockton CE & Riley Brothers L^d Boiler No. 6935 When made 1946Nominal Horse Power Owners British Tanker Corp^d Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby & Nottingham Steel Co. L^d (Letter for Record 5)

Total Heating Surface of Boilers 2020 sq. Is forced draught fitted No. Coal or Oil fired Oil & 244 lbs.

No. and Description of Boilers 1 SE. Multitubular Working Pressure 150 lb/sq. in.

Tested by hydraulic pressure to 275 lb. Date of test 24/6/46 No. of Certificate 7179 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 3" double high lift.

Area of each set of valves per boiler {per Rule 10.2 for H.L. (2/3) as fitted 14.14 Pressure to which they are adjusted 150 lb/sq. in. Are they fitted with easing gear Yes.

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

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 Is the bottom of the boiler insulated No.

Largest internal dia. of boilers 12'-10 3/4" Length 11'-6" Shell plates: Material steel Tensile strength 29-33.

Thickness 19/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams {end DR. 440. inter. 3-187

long. seams TR - D.B.s. Diameter of rivet holes in {circ. seams 1 1/16" long. seams 1 1/16" Pitch of rivets {7 1/16"

Percentage of strength of circ. end seams {plate 66.6% rivets 48.7 Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 84.9 rivets 103 combined

Thickness of butt straps {outer 23/32" inner 27/32" No. and Description of Furnaces in each Boiler 2. Brighton Grapnel

Material steel Tensile strength 26-30 Smallest outside diameter 3'-10"

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

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

End plates in steam space: Material steel Tensile strength 26-30 Thickness 1" Pitch of stays 18" x 17"

How are stays secured Double nuts & washers screwed into both plates

Tube plates: Material {front back steel Tensile strength 26-30 Thickness 7/8" 7/4"

Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13 1/2"

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

at centre 7'-2 1/2" Length as per Rule 2'-3 1/2" Distance apart 9" No. and pitch of stays

in each 2 29' Combustion chamber plates: Material steel

Tensile strength 26-30 Thickness: Sides 2 1/32" Back 19/32" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 10" x 9" Back 9 1/2" x 8 1/4" Top 9" x 9" Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material steel Tensile strength 26-30

Thickness 7/8" Lower back plate: Material steel Tensile strength 26-30 Thickness 3/4"

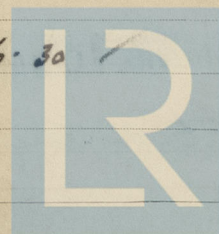
Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts

Main stays: Material steel Tensile strength 28-32

Diameter {At body of stay, or Over threads 2 3/4" No. of threads per inch 6

Screw stays: Material steel Tensile strength 26-30

Diameter {At turned off part, or Over threads 1 1/2" No. of threads per inch 9



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Are the stays drilled at the outer ends No. Margin stays: Diameter { At turned off part, 1 3/4"
or
Over threads

No. of threads per inch 9.

Tubes: Material Stainless Steel External diameter { Plain 2 1/2"
Stay 2 1/2" Thickness { 10 S.W.G.
5/16" No. of threads per inch 9.

Pitch of tubes 3 3/4" x 3 3/4" Manhole compensation: Size of opening in
shell plate 21 x 17 Section of compensating ring 8 1/4" x 1 1/8" No. of rivets and diameter of rivet holes 52 - 1 1/4"

Outer row rivet pitch at ends 7 1/4" 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 pitch
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 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 _____

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,

H. G. W. W. W. Manufacturer.

Manufacturer.

Dates of Survey { During progress of 1945 Nov. 14, 23, 29, Dec. 14, 20, 28, 1946 Jan. 11, 16,
work in shops - - Feb. 7, 14, 28, Mar. 7, 29, Apr. 4, 26,
while building { May 10, 20, 30, June 4, 13, 21. Are the approved plans of boiler and superheater forwarded herewith 9/2/45.
(If not state date of approval.)

Total No. of visits 21.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. M'doro Rpt No. 18052

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

This boiler has been constructed under Special Survey & in accordance with the Rule 17/5/42
Requirements & approved plan.

The materials & workmanship are good & on completion the boiler was hydraulically
tested to 275 lb p.s.i. & found satisfactory.

This boiler is being dispatched to Sunderland for Wm. Duffell & Co. Ltd. No. 738

The boiler has been securely fitted on board the vessel
& safety valves adjusted to working pressure as above
In recommendation please see Machinery Rpt.

H. G. W. W. W.

Survey Fee ... £ 20 : 5 : 0 When applied for, 28/6/46
Travelling Expenses (if any) £ : : When received, 19

L. J. J. J. J.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 10 JAN 1947

Assigned See F.E. Mch. rpt.



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