

REPORT ON BOILERS

No. 16667
14 AUG 1928

Received at London Office

Writing Report 28th July 1928 When handed in at Local Office 11 x 8 1928 Port of WEST HARTLEPOOL

Survey held at West Hartlepool Date, First Survey 26th May/28 Last Survey 10th Aug^r 1928

(Number of Visits) Gross Tons Net

on the M.V. "BRITISH JUSTICE"

By whom built Palmers S.B. Co. Yard No. 977 When built 1928

By whom made Richardsons Westgarth & Co. Ltd Engine No. 2667 When made 1928

Boiler No. 2667 When made 1928

Port belonging to

Owners

ULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

shut off manufacturers of Steel D. Colville & Sons Ltd (Letter for Record S)

total Heating Surface of Boilers 1595 sq. ft Is forced draught fitted yes Coal or Oil fired oil

Pressure as per, and Description of Boilers One single ended Working Pressure 150 lbs

tested by hydraulic pressure to 275 lbs Date of test 17.11.27 No. of Certificate 3720 Can each boiler be worked separately yes

valves fitted No. and Description of safety valves to each boiler 2 direct spring ordinary. Are they fitted with easing gear yes

area of Firegrate in each Boiler 14.49 Pressure to which they are adjusted 155 lbs

area of each set of valves per boiler 16.59

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

Is the bottom of the boiler insulated

smallest distance between shell of boiler and tank top plating

largest internal dia. of boilers 11'-4 5/16" Length 11'-6" Shell plates: Material Steel Tensile strength 28/32

thickness 3/32 Are the shell plates welded or flanged no Description of riveting: circ. seams DR 20k

circ. seams DR. D.B.S. Diameter of rivet holes in 1 1/2" Pitch of rivets 3 7/8"

Percentage of strength of circ. end seams plate 68 rivets 50 Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 81.6 rivets 81.4 combined 90.5 Working pressure of shell by Rules 152 lbs

Thickness of butt straps outer 1/16" inner 1/16" No. and Description of Furnaces in each Boiler 2 Morrison's

Material Steel Tensile strength 26/30 Smallest outside diameter 3'-1 3/8"

Length of plain part top bottom Thickness of plates crown 7/16" bottom 7/16" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 167 lbs.

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 1/2" Pitch of stays 2 1/2" x 13 3/4"

How are stays secured Double nuts Working pressure by Rules 151 lbs.

Tube plates: Material steel Tensile strength 26/30 Thickness 1 1/8" 1 1/16"

Mean pitch of stay tubes in nests 7 1/4" x 11 1/4" Pitch across wide water spaces 13 1/2"

Girders to combustion chamber tops: Material Steel Tensile strength 26/30 Distance apart 9 1/4"

at centre 7 1/4" x 1 5/8" Length as per Rule 2'-5 13/32" No. and pitch of stays

in each 3 7" Working pressure by Rules 154 lbs Back 1 1/8" Top 1 1/16" Bottom 9/16"

Tensile strength 26/30 Thickness: Sides 7 x 9 1/4" Back 8 x 9 1/2" Top 7 x 9 1/4" Are stays fitted with nuts or riveted over nuts.

Pitch of stays to ditto: Sides 7 x 9 1/4" Back 8 x 9 1/2" Top 7 x 9 1/4" Working pressure by Rules 157 lbs

Front plate at bottom: Material Steel Tensile strength 26/30 Thickness 3/4"

Thickness 1 1/8" Lower back plate: Material Steel Tensile strength 26/30 Thickness 3/4"

Pitch of stays at wide water space 13 1/2" x 8" Are stays fitted with nuts or riveted over nuts

Working Pressure 184 lbs Main stays: Material Steel Tensile strength 28/32

Diameter At body of stay, 2 1/2" x 2 5/8" No. of threads per inch 6 Area supported by each stay 2 1/2" x 14 1/2"

Over threads 150 lbs Screw stays: Material Steel Tensile strength 26/30

Working pressure by Rules 150 lbs No. of threads per inch 9 Area supported by each stay 8" x 9 1/2"

Diameter At turned off part, 1 1/2" Over threads

Working pressure by Rules *165 lb* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, *✓*
or *1 5/8"*
Over threads *✓*
No. of threads per inch *9* Area supported by each stay *11 1/2" x 8"* Working pressure by Rules *104 lb*
Tubes: Material *Iron* External diameter { Plain *2 1/2"* Thickness { *10 W.C.*
Stay *2 1/2"* *5/16" 3/8"* No. of threads per inch *9*
Pitch of tubes *3 3/4" x 3 5/8"* Working pressure by Rules *175 lb* Manhole compensation: Size of opening in
shell plate *12" x 16"* Section of compensating ring *10 5/8" x 3 1/2"* No. of rivets and diameter of rivet holes *128 1 1/2"*
Outer row rivet pitch at ends *5 5/8"* Depth of flange if manhole flanged *✓* Steam Dome: Material *none*
Tensile strength *220* Thickness of shell *10 W.C.* Description of longitudinal joint
Diameter of rivet holes *5/16"* Pitch of rivets *2"* Percentage of strength of joint { Plate
Rivets
Internal diameter Working pressure by Rules *175 lb* Thickness of crown *10 W.C.* 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 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 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 23 inclusive for boilers been complied with *yes.*

The foregoing is a correct description,
For RICHARDSONS, WESTGARTH & CO. LIMITED,
MANUFACTURER.
MANAGING DIRECTOR.

Dates { During progress of
of Survey { work in shops - *✓*
while { During erection on
building { board vessel - *✓*
Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)
Total No. of visits

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

Survey Fee ... £ *10 : 12 : 00* When applied for, *13.8.1921*
Travelling Expenses (if any) £ *00 : 00 : 00* When received, *22/8/21*

R.D. Shilston
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRL 24 AUG 1921*

Assigned *see minute*
on Hpl Rpl 16667