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REPORT ON BOILERS.

No. 107041

Received at London Office 3 MAR 1950

Date of writing Report 2.3.50 When handed in at Local Office 2.3.50 Port of NEWCASTLE-ON-TYNE

No. in Reg. Book. Survey held at WALLSEND-ON-TYNE. Date, First Survey 5th OCTOBER 1949 Last Survey 28.2.1950

on the M.V. "BRITISH GENERAL" (Number of Visits 12) Gross Tons Net

Master Built at HAVELTON HILL-ON-TEES By whom built FURNESS SHIPBUILDING CO. LTD. Yard No. 434. When built

Engines made at By whom made Engine No. When made

Boilers made at WALLSEND-ON-TYNE By whom made WALLSEND SLIPWAY & ENG. CO. LTD. Boiler No. 432B When made 1950

Nominal Horse Power $\frac{3946}{12} = 329$ Owners British Tanker Co. Ltd. Port belonging to London

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

Manufacturers of Steel COLVILLES L^{td}

Total Heating Surface of Boilers $1973 \times 2 = 3946$ sq ft Is forced draught fitted Yes (Letter for Record S OIL FIRED or EXHAUST GAS)

No. and Description of Boilers 2 SINGLE ENDED Working Pressure 150 LBS/p

Tested by hydraulic pressure to 295 LBS/p Date of test 13.2.50 No. of Certificate 1378 Can each boiler be worked separately YES

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2-2 1/4 COCKBURNS IMPROVED HIGH LIFT.

Area of each set of valves per boiler per Rule 7.57 sq in Pressure to which they are adjusted 155 LBS/p Are they fitted with casing 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 3'-6" 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 YES

Largest internal dia. of boilers 13'-0" Length 11'-6" Shell plates: Material MILD STEEL Tensile strength 29/33 Tons/p

Thickness 29/32 Are the shell plates welded or flanged No Description of riveting: circ. seams end DE OVERLAP inter 3.005

long. seams TR DOUBLE BUTT SEAM Diameter of rivet holes in circ. seams 31/32 Pitch of rivets 7 1/16

Percentage of strength of circ. end seams plate 68% rivets 43% Percentage of strength of circ. intermediate seam plate 86% rivets 86% combined 87.77

Percentage of strength of longitudinal joint plate 86% rivets 86% combined 87.77 Working pressure of shell by Rules 157 LBS/p

Thickness of butt straps outer 1 1/16 inner 13/16 No. and Description of Furnaces in each Boiler Two CORRUGATED DRIGHTON TYPE

Material MILD STEEL Tensile strength 26/30 Tons/p Smallest outside diameter 46 1/2

Length of plain part top bottom Thickness of plates crown 1/2 bottom 1/2 Description of longitudinal joint WELD.

Dimensions of stiffening rings on furnace or c.c. bottom NONE Working pressure of furnace by Rules 155 LBS/p

End plates in steam space: Material MILD STEEL Tensile strength 26/30 Tons/p Thickness 1 1/16 Pitch of stays 17" x 19 1/2

How are stays secured NUTTED IN & OUT Working pressure by Rules 157 LBS/p

Tube plates: Material front MILD STEEL back MILD STEEL Tensile strength 26/30 Tons/p Thickness 3/4

Mean pitch of stay tubes in nests 11 1/16 Pitch across wide water spaces 13 1/2 Working pressure front 212 LBS/p back 156 LBS/p

Girders to combustion chamber tops: Material MILD STEEL Tensile strength 29/33 Tons/p Depth and thickness of girder at centre 9 1/2 x 3/4 DOUBLE Length as per Rule 35 1/2 Distance apart 9 3/4 No. and pitch of stays

in each 3 @ 8 3/8 Working pressure by Rules 197 LBS/p Combustion chamber plates: Material MILD STEEL

Tensile strength 26/30 Tons/p Thickness: Sides 3/4 Back 3/4 Top 3/4 Bottom 3/4

Pitch of stays to ditto: Sides 8 3/8 x 9 3/4 Back 8 1/2 x 9 1/2 Top 8 3/8 x 9 3/4 Are stays fitted with nuts or riveted over RIVETED OVER

Working pressure by Rules 160 LBS/p Front plate at bottom: Material MILD STEEL Tensile strength 26/30 Tons/p

Thickness 1" Lower back plate: Material MILD STEEL Tensile strength 26/30 Tons/p Thickness 7/8

Pitch of stays at wide water space 14" x 8 1/2 Are stays fitted with nuts or riveted over NUTS.

Working pressure 152 LBS/p Main stays: Material MILD STEEL Tensile strength 28/32 Tons/p

Diameter At body of stay 2 3/4 No. of threads per inch 6 Area supported by each stay 17" x 19 1/2

Working pressure by Rules 166 LBS/p Screw stays: Material MILD STEEL Tensile strength 26/30 Tons/p

Diameter At turned off part 1 1/2 No. of threads per inch 9 Area supported by each stay 8 3/8 x 9 3/4

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Working pressure by Rules. 154 lbs/p Are the stays drilled at the outer ends. No Margin stays: Diameter 1 5/8 At turned off part. 1 5/8
No. of threads per inch. 9 Area supported by each stay. 8 1/2" x 11 3/4" Working pressure by Rules. 152 lbs/p
Tubes: Material SD STEEL External diameter 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. 155 lbs/p Manhole compensation: Size of opening in
shell plate. 16" x 20" Section of compensating ring. 14" x 2 9/32" No. of rivets and diameter of rivet holes. 52 - 31/32"
Outer row rivet pitch at ends. 7 1/16" Depth of flange if manhole flanged. 2 29/32" 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. ✓
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 ✓
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. Yes.

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

J. B. Kier MANAGING DIRECTOR, Manufacturer.

Dates
of Survey
while
building

During progress of
work in shops - - -
During erection on
board vessel - - -

11949 OCT 5, 13, DEC 9, 15, 19, 11950 JAN 4, 18, 19, 20

Are the approved plans of boiler and superheater forwarded herewith. 23.9.48
(If not state date of approval.)

Total No. of visits. NEWCASTLE-ON-TYNE = 12

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.)

The boiler have been constructed under Special Survey in accordance with the approved plan
The materials & workmanship are good
The boiler has been despatched to HAVERTON HILL-ON-TEES to be installed
in Messrs James S. B. Co. L^{td} YACD N° 434.

These boiler have been carefully fitted aboard & tried out under working conditions &
found satisfactory. On completion the SV's were adjusted under steam to 155 lbs p.

C. R. Stuart

Survey Fee 329 MN £57 : 18 : 0
Travelling Expenses (if any) £ : : }

When applied for, 2-MAR-1950
When received, 19

C. A. Orde

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute. 23 JUN 1950

Assigned. See F.E. mch. opt.



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