

REPORT ON BOILERS.

No. 100676

Received at London Office 3 SEP 1942

Date of writing Report 19 When handed in at Local Office 2-9-1942 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at 7. Book. Date, First Survey 18-1-42 Last Survey 26-8-1942
 3464 on the SS. "EMPIRE THACKERAY"
 (Number of Visits 34.) Gross Tons Net
 Built at Sunderland. By whom built Sir J. Laing & Sons Ltd Yard No. 744 When built 1942
 Engines made at Wallsend. By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 3025 When made 1942
 Boilers made at " By whom made " Boiler No. 3025 When made 1942
 Nominal Horse Power Owners Port belonging to

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby-Frodingham Steel Co Ltd. (Letter for Record S)
 Total Heating Surface of Boilers 4006 sq. ft. Is forced draught fitted yes Coal or Oil fired coal
 No. and Description of Boilers 2SB. Working Pressure 200
 Tested by hydraulic pressure to 350 Date of test 8-4-42. No. of Certificate 961 Can each boiler be worked separately yes
 Area of Firegrate in each Boiler 48 sq. ft. No. and Description of safety valves to each boiler 1 Dble Improved High Lift
 Area of each set of valves per boiler {per Rule 5.9 as fitted 7.8 Pressure to which they are adjusted 205 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 2'-3" Is oil fuel carried in the double bottom under boilers no
 Smallest distance between shell of boiler and tank top plating 2'-0" Is the bottom of the boiler insulated yes
 Largest internal dia. of boilers 13'-6" Length 11'-6" Shell plates: Material S Tensile strength 29-33
 Thickness 1 3/16" Are the shell plates welded or flanged no Description of riveting: circ. seams {end TR inter. TR
 Rivet seams TR. DBS Diameter of rivet holes in {circ. seams 1 1/4" long. seams 1 1/4" Pitch of rivets {3 7/8" 8 3/4"
 Percentage of strength of circ. end seams {plate 65.5 rivets 45.2 Percentage of strength of circ. intermediate seam {plate rivets
 Percentage of strength of longitudinal joint {plate 85.7 rivets 87.8 combined 88.9 Working pressure of shell by Rules
 Thickness of butt straps {outer 29/32" inner 1 1/32" No. and Description of Furnaces in each Boiler 3 cf.
 Material S Tensile strength 26-30 Smallest outside diameter 3'-0 13/16"
 Length of plain part {top bottom Thickness of plates {crown 17/32" bottom 17/32" Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules
 End plates in steam space: Material S Tensile strength 26-30 Thickness 1 7/16" Pitch of stays 25 x 18"
 How are stays secured Double Nuts Working pressure by Rules
 End plates: Material {front S back S Tensile strength {26-30 Thickness {1 7/16" 25/32"
 Can pitch of stay tubes in nests 9'-6" Pitch across wide water spaces 14 1/2" x 8 1/4" Working pressure {front back
 Orders to combustion chamber tops: Material S Tensile strength 29-33 Depth and thickness of girder
 Centre 9 x 13/16" dble Length as per Rule 2'-8" Distance apart 10 1/4" No. and pitch of stays
 Each 2 @ 9 1/2" Working pressure by Rules Combustion chamber plates: Material S
 Tensile strength 26-30 Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 3/4"
 Pitch of stays to ditto: Sides 10 1/4" x 9 1/2" Back 10 1/4" x 9 1/2" Top 10 1/4" x 9 1/2" Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules Front plate at bottom: Material S Tensile strength 26-30
 Thickness 1 5/16" Lower back plate: Material S Tensile strength 26-30 Thickness 29/32"
 Pitch of stays at wide water space 14 1/2" x 10 1/4" Are stays fitted with nuts or riveted over nuts
 Working Pressure Main stays: Material S Tensile strength 28-32
 Meter {At body of stay, 3 1/4" No. of threads per inch 6 Area supported by each stay
 Over threads 3 1/2"
 Working pressure by Rules Screw stays: Material S Tensile strength 26-30
 Meter {At turned off part, 1 1/8" No. of threads per inch 9 Area supported by each stay
 Over threads 1 1/8"

Working pressure by Rules ☒ Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, or Over threads *2"*
No. of threads per inch *9* Area supported by each stay ☒ Working pressure by Rules ☒
Tubes: Material *S.D. Steel* External diameter { Plain *3"* Stay *3"* Thickness { *8 w.g.* *3/8 + 5/16* No. of threads per inch *9*
Pitch of tubes *4 1/4 x 4 1/8* Working pressure by Rules ☒ Manhole compensation: Size of opening
shell plate *none* Section of compensating ring No. of rivets and diameter of rivet holes
Outer row rivet pitch at ends 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 Working pressure by Rules Thickness of crown No. and diameter
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes and
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
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
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes forgings and castings and after assembly in place Are drain cocks
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,

John Neill

Manufacture

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

See machinery report

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Plans forwarded to Newcastle Rpt. no. 10067*

Total No. of visits

Is this Boiler a duplicate of a previous case *yes* If so, state Vessel's name and Report No. *Nure Rpt 99956*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been made & installed under Special Survey in accordance with the Approved Plan, the Requirements of the Rules & the Specification. The materials & workmanship are good & the boiler proved satisfactory under hydraulic & steaming tests.*

Survey Fee ... £ *See Mch report* When applied for, 19
Travelling Expenses (if any) £ *Rpt* When received, 19

B. Moffitt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 18 SEP 1942

Assigned

See Std. 33477



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