

REPORT ON BOILERS.

No. 101798

14 JAN 1944

13 JAN 1944

Received at London Office

Date of writing Report 31/12/1943 When handed in at Local Office 31/12/1943 Port of

NEWCASTLE-ON-TYNE

No. in Reg. Book. Survey held at Wallsend Date, First Survey 28th January '43 Last Survey 6th October 1943

on the SS "EMPIRE BERESFORD"

Number of Visits 12 Tons { Gross Net

Built at Sunderland By whom built Sir J. Laing & Sons Ltd Yard No. 753 When built 1943

Engines made at Wallsend By whom made N.E. Marine Eng Co (1938) Ltd Engine No. 3060 When made 1943

Boilers made at " By whom made " Boiler No. 3066 When made 1943

Nominal Horse Power Owners Ministry of War Transport Port belonging to Sunderland

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S)

Total Heating Surface of Boilers 10020 Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers 3SB Working Pressure 220

Tested by hydraulic pressure to 380 Date of test 31.8.43 No. of Certificate 1059 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 8.88 No. and Description of safety valves to each boiler 1 Double improved high lift

Area of each set of valves per boiler { per Rule 8.88 as fitted 9.8 Pressure to which they are adjusted 225 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 yes

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 16'-2 3/4" Length 12'-6" Shell plates: Material S Tensile strength 30-84

Thickness 1 23/64 Are the shell plates welded or flanged no Description of riveting: circ. seams { end DR inter. 4 5/8"

Long. seams T.R. DBS Diameter of rivet holes in { circ. seams 1 9/16" long. seams Pitch of rivets { 10 1/4"

Percentage of strength of circ. end seams { plate 62.1 rivets 47 Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate 84.7 rivets 88.7 combined 87.4

Thickness of butt straps { outer 1 7/32" inner 1 9/32" No. and Description of Furnaces in each Boiler 3 cf.

Material S Tensile strength 26-30 Smallest outside diameter 47 23/32"

Length of plain part { top bottom Thickness of plates { crown 47/164 bottom Description of longitudinal joint weld

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

End plates in steam space: Material S Tensile strength 26-30 Thickness 1 13/32" Pitch of stays 22 1/4" x 18 1/2"

How are stays secured Double nuts

Tube plates: Material { front back S Tensile strength { 26-30 Thickness { 15/16" 7/8"

Mean pitch of stay tubes in nests 8.7" Pitch across wide water spaces 14 1/2" x 7 1/4"

Girders to combustion chamber tops: Material S Tensile strength 29-33 Depth and thickness of girder

at centre 11 3/4" x 1" dble Length as per Rule 46 1/2" Distance apart 8 1/2" wing 9" Centre No. and pitch of stays

in each 32 11 1/8" Combustion chamber plates: Material S

Tensile strength 26-30 Thickness: Sides 13/16" Back 23/32" Top 13/16" Bottom 29/32"

Pitch of stays to ditto: Sides 11 1/8" x 8 1/2" Back 9 3/4" x 8" Top 11 1/8" x 9" Are stays fitted with nuts or riveted over nuts

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

Thickness 15/16" Lower back plate: Material S Tensile strength 26-30 Thickness 15/16"

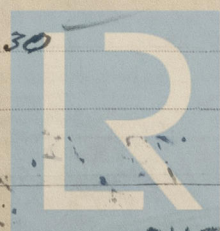
Pitch of stays at wide water space 15 3/8" x 8" Are stays fitted with nuts or riveted over nuts

Main stays: Material S Tensile strength 28-32

Diameter { At body of stay, or Over threads 3 1/4" x 3 1/2" No. of threads per inch 6

Screw stays: Material S Tensile strength 26-30

Diameter { At turned off part, or Over threads 1 3/4" x 2" No. of threads per inch 9



© 2020

Lloyd's Register Foundation

004512-004519-0081

Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, ✓
or 2" x 2 1/8"
Over threads ✓

No. of threads per inch 9

Tubes: Material LW Steel External diameter { Plain 2 1/2
Stay 2 1/2 Thickness { 7/16 8 W4
3/8 5/16 No. of threads per inch 9

Pitch of tubes 4 x 3 5/8" Manhole compensation: Size of opening in
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 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 Combustion Chamber Manufacturers of { Tubes Stewart & Lloyds
Steel forgings Stewart & Lloyds
Steel castings ✓

Number of elements 36 Material of tubes SD Steel Internal diameter and thickness of tubes 1.273 x 7 W4

Material of headers SD Steel Tensile strength 26-28 Thickness 1" Can the superheater be shut off and
the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes

Area of each safety valve 3.14 Are the safety valves fitted with easing gear yes

Pressure to which the safety valves are adjusted 225 Hydraulic test pressure:
tubes 1500 Headers 660 forgings and castings 660 and after assembly in place 440 Are drain cocks or
valves fitted to free the superheater from water where necessary yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

THE NORTH EAST LONDON SURVEYING is a correct description,

John Neill Manufacturer.

Dates of Survey { During progress of 28th January, 1943 to 6 Dec, 1943 (approx. 12 visits) Are the approved plans of boiler and superheater forwarded herewith
while building { During erection on See Machinery Rpt (If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Standard Tankers

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers & superheaters
have been constructed & installed under Special Survey in accordance with
the Approved Plans, the Requirements of the Rules & the Specification

The materials & workmanship are good & the boilers & superheaters
proved sound & tight under hydraulic test & satisfactory under steam

Survey Fee ... £ See Memo When applied for, 19
Travelling Expenses (if any) £ Report When received, 19

Beloffitt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 21 JAN 1944

Assigned

see minute
on J.E. Rpt.



© 2020

Lloyd's Register
Foundation