

REPORT ON BOILERS.

No. 101055

Received at London Office

22 FEB 1943

Date of writing Report

19

When handed in at Local Office

19

Port of

NEWCASTLE-ON-TYNE

18 FEB 1943

No. in Survey held at
Reg. Book.

Walsend.

Date, First Survey

9. 7. 42.

Last Survey

12. 2.

19 43.

89098 on the 33. "WEARFIELD"

(Number of Visits)

Tons { Gross
Net

Built at Sunderland. By whom built Sir J. Laing & Sons Ltd

Yard No. 746 When built 1943.2

Engines made at Walsend.

By whom made C. E. Marine Eng Co (1988) Ltd

Engine No. 3039 When made 1943

Boilers made at

By whom made

Boiler No. 3039 When made 1943

Nominal Horse Power

Owners

Hunting & Sons Ltd

Port belonging to

Newcastle

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

3 SR

Working Pressure 220

Tested by hydraulic pressure to

380

Date of test

S 1.12.42.
C 4.12.42.
P 11.12.42.

No. of Certificate

1021
1022
1026

Can each boiler be worked separately yes

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

8.88

Double improved high lift.

Area of each set of valves per boiler

{ per Rule
as fitted

9.8

Pressure to which they are adjusted

225 lbs 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 3/32"

Length

12' 6"

Shell plates: Material

S.

Tensile strength 30-34

Thickness

1 3/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end DR
inter. ✓

long. seams

T.R. D.B.S.

Diameter of rivet holes in

{ circ. seams
long. seams

1 9/16"

Pitch of rivets

4 1/8"

10 1/4"

Percentage of strength of circ. end seams

{ plate
rivets62.1
47

Percentage of strength of circ. intermediate seam

{ plate
rivets

Percentage of strength of longitudinal joint

{ plate
rivets84.75
88.7

combined

87.4

Thickness of butt straps

{ outer
inner1 5/32"
1 9/32"

No. and Description of Furnaces in each Boiler

3 SR cf.

Material

S

Tensile strength

26-30

Smallest outside diameter

47 23/32"

Length of plain part

{ top
bottom

✓

Thickness of plates

{ crown
bottom

47/64"

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 1/32"

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

1 5/16"
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

Steel

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

5 d 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" + 3 1/2"

No. of threads per inch

6

Screw stays: Material

S

Tensile strength

26-30

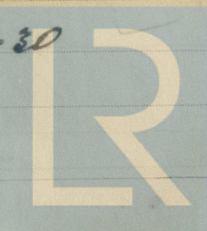
Diameter

{ At turned off part,
or
Over threads

1 3/4" + 2"

No. of threads per inch

9



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Foundation

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

No. of threads per inch 9

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

Pitch of tubes 4 x 3 7/8" 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 N.E.M. Combustion Chamber Manufacturers of { Tubes Talbot Stead Headers Stewarts & Lloyds Steel forgings _____ Steel castings _____

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

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 sq" Are the safety valves fitted with easing gear yes

Pressure to which the safety valves are adjusted 225 lbs Hydraulic test pressure: tubes 1500 lbs 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 foregoing is a correct description,

John Neill

Manufacturer.

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

See Mch'y Rpt.

Are the approved plans of boiler and superheater forwarded herewith (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. Empire Collins Nwe. 100957

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers & Superheaters have been made & installed under Special Survey in accordance with the approved Plans & the Requirements of the Rules. The materials & the workmanship are good. The boilers & Superheaters proved sound & tight under hydraulic test & satisfactory under steam

Survey Fee £ See Mch'y Rpt. When applied for, 19

Travelling Expenses (if any) £ : Rpt. When received, 19

W. C. Haffitt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 26 FEB 1943

Assigned

See Std. J.E. 23618



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