

## REPORT ON WATER TUBE BOILERS.

No. 100775

Received at London Office

9 - OCT 1942

Writing Report

19

When handed in at Local Office

19

Port of Newcastle-upon-Tyne

Survey held at

Newcastle-upon-Tyne

Date, First Survey

12. 11. 41

Last Survey

24. 9. 1942

Bk.

(Number of Visits 18)

Gross

Net

on the M.V. "EMPIRE WORDSWORTH"

at Sunderland

By whom built Sir Jas Laing &amp; Sons Ltd When built 1942

made at Newcastle

By whom made R.W. Hawthorn Leslie &amp; Co Ltd When made 1942

made at Newcastle

By whom made R.W. Hawthorn Leslie &amp; Co Ltd When made 1942

al Horse Power

Owners

Ministry of War Transport Port belonging to Sunderland

TER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Colvilles Ltd.

of Approval of plan

9/10/41

Number and Description or Type

Boilers One - Three drum type

Working Pressure 180 lb/sq in

Tested by Hydraulic Pressure to 320 lb/sq in

Date of Test 14/5/42

Certificate 971.

Can each boiler be worked separately

Total Heating Surface of Boilers 3,300 sq ft

ced draught fitted

yes.

Area of fire grate (coal) in each Boiler

nd type of burners (oil) in each boiler Three. 6. Clyde type.

No. and description of safety valves on

oilier Two, 3 1/2" Spring loaded H.L. Type

Area of each set of valve 22.1 sq in

Pressure to which they are adjusted 185 lbs

ey fitted with easing gear yes

In case of donkey boilers state whether steam from main boilers can enter the donkey boiler

st distance between boilers or uptakes and bunkers or woodwork

Height of boiler 11'-1"

Width and Length 14'-0" x 11'-8"

Drums:—Number in each boiler One

inside diameter 44"

Thickness of plates Tube plate 1 1/2" wrapper 5/8"

of Tensile Strength 28/32 tons/sq in

Are drum shell plates welded or flanged no

Description of riveting:—

seams D.R. lap. long. seams D.R.D.B.S.

Diameter of rivet holes in long. seams 29/32

Pitch of rivets 3.55"

f plate or width of butt straps 9 5/8", 9 1/8"

Thickness of straps 1/2"

Percentage strength of long. joint:—Plate 74.5 Rivet 88.8

ter of tube holes in drum 1 1/2", 1 1/8" (+ 10/1000)

Pitch of tube holes 2 1/4", 1 1/16"

Percentage strength of shell in way of tubes 33.3

ing pressure by rules 310 lb/sq in

Steam Drum Heads or Ends:—Range of tensile strength 26/30 tons/sq in

Thickness of plates 1"

s or how stayed 44"

Size of manhole or handhole 16" x 12"

Working pressure by rules 239 lb/sq in

Water Drums:—Number

h boiler Two

Inside Diameter 27"

Thickness of plates 1 1/2", 9/16"

Range of tensile strength 28/32 tons/sq in

Are drum shell plates

l or flanged no

Description of riveting:—Cir. seams S.R. lap.

long. seam D.R. V.B.S.

Diameter of rivet holes in

seams 27/32

Pitch of rivets 3 5/16"

Lap of plates or width of butt straps 9 1/4", 8 5/8"

Thickness of straps 1/2"

ntage strength of long. joint:—Plate 74.5 Rivet 92.6

Diameter of tube holes in drum 1 1/2", 1 1/8" (+ 10/1000)

Pitch of tube holes 2 1/4", 1 1/16"

ntage strength of drum shell in way of tubes 33.3

Working pressure by rules 450 lb/sq in

Water Drum Heads or Ends:—Range of

e strength 26/30 tons/sq in

Thickness of plates 7/8", 13/16"

Radius or how stayed 27"

f manhole or handhole 16" x 12"

Working pressure by rules 332 lb/sq in

Headers or Sections:—Number

Tubes:—Diameter 1 1/2", 1 1/8"

ness 128", 116"

Number 178,1498.

Steam Dome or Collector:—Description of Joint to Shell

diameter

Thickness of shell plates

Range of tensile strength

ption of longitudinal joint

Diameter of rivet holes

Pitch of rivets

Lap of plate or width of

raps

Thickness of straps

Percentage strength of long. joint

Plate

Rivet

ing Pressure of shell by rules

Crown or End Plates:—Range of tensile strength

ness

Radius or how stayed

Working pressure by rules

PERHEATER. Drums or Headers:—Number in each boiler

Inside Diameter

ness

Material

Range of tensile strength

Are drum shell plates welded

aged

Description of riveting:—Cir. seams

long. seams

Diameter of rivet holes in

seams

Pitch of rivets

Lap of plates or width of butt straps

Thickness of straps

ntage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

ntage strength of drum shell in way of tubes

Working pressure by rules

Drum Heads or Ends:—

ness

Range of tensile strength

Radius or how stayed

Size of manhole or handhole

ing pressure by rules

Number, diameter, and thickness of tubes

Tested by Hydraulic Pressure to

of Test

Is a safety valve fitted to each section of the superheater which can be shut off from the boiler

nd description of Safety Valves

Area of each set of valves

ure to which they are adjusted

Is easing gear fitted

re Gear. Has the spare gear required by the rules been supplied

yes.

The foregoing is a correct description,

R.B. Johnson

Manufacturer.

During progress of work in shops - Jan. 29. Feb. 16. 19. 24. Mar. 2. 16. 24. 27. 30. Apr. 17. 27. Is the approved plan of boiler forwarded herewith

During erection on board vessel - See machinery Report.

Total No. of visits 18

boiler a duplicate of a previous case no If so, state vessel's name and report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been fitted board in accordance with the Requirements of the Rules & found satisfactory under working conditions. The boiler has been built under al survey in accordance with Approved Plans, the workmanship & materials are good & the boiler was found tight & sound under hydraulic pressure

Survey Fee 20 Specifications 27 10 0

When applied for, See Machinery Report

When received, 19

of Shipping Travelling Expenses (if any) £

Robt. Johnson & Co. Ltd.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRL 16 OCT 1942

Signed See Old No. 33498

Lloyd's Register  
Foundation