

REPORT ON BOILERS.

No. 428.

Received at London Office

-4 MAR 1931

Date of writing Report *Feb 18th 1931* When handed in at Local Office

19

Port of *Sheffield*No. in
Reg. Book

Survey held at

Cradley Heath

Date, First Survey

29/10/30

Last Survey

February 13th 1931

(Number of Visits)

Gross

Tons

Net

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

Cradley Heath

By whom made

*The Cradley Boiler Co. Ltd*Boiler No. *17873*When made *1931*

Owners

Port belonging to

VERTICAL DONKEY BOILER.

Made at *Cradley Heath* By whom made *Cradley Boiler Co. Ltd* Boiler No. *17873* When made *1931* Where fixed ☒Manufacturers of Steel *Messrs The Consett Iron Co. Ltd*

Total Heating Surface of Boiler

*82 sq*Is forced draught fitted ☒

Coal or Oil fired

*oil*No. and Description of Boilers *1. Vertical Cross Tube*Working pressure *100 LBS* ☒

Tested by hydraulic pressure to

200 LBS ☒

Date of test

*13/2/31*No. of Certificate *532*

Area of Firegrate in each Boiler

11 sq

No. and Description of safety valves to each boiler

1 1/2 Double Marine ☒

Area of each set of valves per boiler

per rule *1.06*
as fitted *3.534* ☒Pressure to which they are adjusted ☒Are they fitted with easing gear ☒State whether steam from main boilers can enter the donkey boiler ☒

Smallest distance between boiler or uptake and bunkers

or woodwork ☒Is oil fuel carried in the double bottom under boiler ☒

Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated ☒

Largest internal dia. of boiler

*4' 3"*Height *9' 9"*

Shell plates: Material

Steel ☒

Tensile strength

26/32 ☒

Thickness

3/8" ☒

Are the shell plates welded or flanged

no ☒

Description of riveting: circ. seams

end *SR lap* ☒
inter *"* ☒

long. seams

DR lap ☒

Dia. of rivet holes in

circ. seams *13/16* ☒
long. seams *13/16* ☒

Pitch of rivets

2" ☒
2 1/2" ☒

Percentage of strength of circ. seams

plate *59.5*
rivets *57.0*

of Longitudinal joint

plate *67.6*
rivets *90.7*
combined *80*

Working pressure of shell by rules

128 LBS ☒

Thickness of butt straps

outer *none* ☒
inner *none* ☒

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

dished ☒

Material

Steel ☒

Tensile strength

26/30 ☒

Thickness

15/32 ☒

Radius

4' 3" ☒

Working pressure by rules

107 LBS ☒

Description of Furnace: Plain, spherical, or dished crown

dished ☒

Material

Steel ☒

Tensile strength

26/30 ☒

Thickness

17/32 ☒

External diameter

top *3-6 5/16* ☒
bottom *3-10 1/16* ☒

Length as per rule

4' 2" ☒

Working pressure by rules

114 LBS ☒

Pitch of support stays circumferentially

none ☒and vertically ☒Are stays fitted with nuts or riveted over ☒Diameter of stays over thread ☒

Radius of spherical or dished furnace crown

3' 6" ☒

Working pressure by rule

105 LBS ☒

Thickness of Ogee Ring

none ☒

Diameter as per rule

D ☒
d ☒Working pressure by rule ☒

Combustion Chamber: Material

Tensile strength

Thickness of top plate

Radius if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

Length as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

Diameter of stays over thread

Working pressure of back plate by rules

Tube Plates: Material

front

Tensile strength

Thickness

Mean pitch of stay tubes in nests

If comprising shell, Dia. as per rule

front

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

BACK

stay

Is each alternate tube in outer vertical rows a stay tube

Working pressure by rules

front

back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder at centre

Length as per rule

Distance apart

No. and pitch of stays in each

Working pressure by rule

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WS11-0241

Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____ or over threads _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____
Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____ or over threads _____ No. of threads per inch _____
 Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____
Tubes: Material _____ External diameter { pin _____ stay _____ Thickness _____ Working pressure by rules _____
 No. of threads per inch _____ Pitch of tubes _____
Manhole Compensation: Size of opening in shell plate 16×12 ✓ Section of compensating ring $5 \frac{1}{2} \times \frac{1}{2}$ ✓ No. of rivets and diameter _____
 of rivet holes $32 \frac{1}{16}$ ✓ Outer row rivet pitch at ends $4 \frac{1}{4}$ ✓ Depth of flange if manhole flanged ✓
Uptake: External diameter 12 ✓ Thickness of uptake plate $\frac{1}{2}$ ✓
Cross Tubes: No. 3 External diameters { 8 ✓ Thickness of plates $\frac{3}{8}$ ✓
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
CRADLE & MILLER CO. LTD.,
William Lee Manufacturer.
 Managing Director

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

29/10/30 5/11/30 13/2/31

Is the approved plan of boiler forwarded herewith (If not state date of approval.)

Yes

Total No. of visits 3.

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.)

This boiler has been built under special survey and to the approved plan, the materials have been tested in accordance with the rules and the workmanship is good.
 This boiler is for shipment to Messrs Burmeister & Wain Copenhagen and is intended for their Yard No. 582.

Marked. No. 532
 LLOYDS TEST.
 200 LBS.
 W.P. 100 "
 RWF 13/2/31.

Survey Fee ... £ 4 : 4 - When applied for, 19
 Travelling Expenses (if any) £ 2 : 2 - When received, 24 3 19 31

Committee's Minute
 Assigned

FRI. 26 JUN 1931

TUE. 1 SEP 1931

See other Shuff Rpt 428
 & Hfs Rpt. 732 a

RW Fawcett
 Engineer Surveyor to Lloyd's Register of Shipping.
 Lloyd's Register Foundation