

REPORT ON BOILERS.

No. 9717

AIR RECEIVERS

Received at London Office 11 APR 1921

Writing Report

19

When handed in at Local Office

19

Port of

Belfast

Survey held at

Belfast

Date, First Survey

See J. & E. report.

19

on the

PORT FREMANTLE

Tons } Gross
Net

Belfast

By whom built Warkman Black Ld.

Yard No. 489

When built

made at

Sunderland

By whom made Warkman & Sons Ld.

Engine No. 154

When made

made at

By whom made

Boiler No.

When made

Commonwealth & Dominion Line Ltd.

Port belonging to London

ICAL ~~DONKEY BOILER~~ AIR RECEIVERS.

Belfast

By whom made Warkman Black Ld. Boiler No. 41

When made 1927 Where fixed Engine Room

Constructors of Steel

Fried Krupp Ld.

CAPACITY OF RECEIVERS

3 at 160 $\frac{1}{2}$ = 480 $\frac{1}{2}$

Is forced draught fitted

Coal or Oil fired

Description of Boilers

Three Dished-ended Built Receivers

Working pressure 600 lbs.

by hydraulic pressure to

800 lbs.

Date of test

25th Feb. 1927

No. of Certificate

Firegrate in each Boiler

No. and Description of safety valves to each boiler

each set of valves per boiler

per rule
as fitted

Pressure to which they are adjusted

Are they fitted with easing gear

Whether steam from main boilers can enter the donkey boiler

Smallest distance between boiler or uptake and bunkers

work

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 51"

Height 12'6"

plates: Material

Steel

Tensile strength 28 $\frac{1}{2}$ to 32 $\frac{1}{2}$ tons

Thickness

1 $\frac{1}{2}$ "

shell plates welded or flanged

No.

Description of riveting: circ. seams

end Double
inter

long. seams

Triple S.S.

rivet holes in

circ. seams 1 $\frac{3}{32}$ "
long. seams 1 $\frac{5}{32}$ "

Pitch of rivets

3.277"
8"

Percentage of strength of circ. seams

plate 62.8
rivets 49.8

of Longitudinal joint

plate 85.5
rivets 85.8
combined 88.2

ing pressure of shell by rules

608 lbs.

Thickness of butt straps

outer 7"
inner 1"

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

Dished partial Spherical

Material

Steel

strength 26 to 30 tons

Thickness

1 $\frac{3}{8}$ "

Radius

33"

Working pressure by rules

624 lbs

tion of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

ss

External diameter

top
bottom

Length as per rule

Working pressure by rules

f support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

er of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

ss of Ogee Ring

Diameter as per rule

D
d

Working pressure by rule

tion Chamber: Material

Tensile strength

Thickness of top plate

if dished

Working pressure by rule

Thickness of back plate

Diameter if circular

as per rule

Pitch of stays

Are stays fitted with nuts or riveted over

er of stays over thread

Working pressure of back plate by rules

lates: Material

front
back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

rising shell, Dia. as per rule

front
back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay
plain

BACK

stay
plain

alternate tube in outer vertical rows a stay tube

Working pressure by rules

front
back

to combustion chamber tops: Material

Tensile strength

and thickness of girder at centre

Length as per rule

apart

No. and pitch of stays in each

Working pressure by rule

003549-003555-0130

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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 { plain _____ stay _____ Thickness { _____

No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____

Manhole Compensation: Size of opening in shell plate $22" \times 17\frac{1}{4}"$ Section of compensating ring $35\frac{1}{4}" \times 33\frac{1}{4}" \times 1\frac{1}{4}"$ No. of rivets and dist. _____

of rivet holes $42 - 1\frac{1}{4}"$ Outer row rivet pitch at ends $10"$ Depth of flange if manhole flanged _____

Uptake: External diameter _____ Thickness of uptake plate _____

Cross Tubes: No. _____ External diameters { _____ Thickness of plates _____

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with _____

The foregoing is a correct description.
F. Cunningham Manufacturer

Dates of Survey { During progress of work in shops - - } *See F.E. rpt* Is the approved plan of boiler forwarded herewith (If not state date of approval.) *Yes*

while building { During erection on board vessel - - } Total No. of visits _____

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

These receivers have been constructed under Special Survey to the Society's rules and approved designs. They have been satisfactorily tested by hydraulic pressure, installed and fastened on the M.V. "Pat Inman". In my opinion they are eligible for a classed vessel.

Survey Fee ... £ *See mech. Rpt.* When applied for, 19

Travelling Expenses (if any) £ *See* : : When received, 19

Committee's Minute
Assigned

TDER. 12 APR 1927
See other Rpt. Same No.

