

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 41788

Date of writing Report

1st Mar 1922

When handed in at Local Office

11th Mar 1922

Port of

Glasgow

Received at London Office

Wed Mar 15. 1922

TUE. MAY. 8 1923

No. in
Reg. Bk.

Survey held at

Renfrew

Date, First Survey

16. 9. 21

Last Survey

14. 12

1921

on the

3

Babcock & Wilcox Boilers No 1176

Number of Visits

F

Gross

3345

Tons

Net

1908

Master

Built at

St. Adelaide

By whom built

Messrs. Poole & Steel

When built

3-1923

Engines made at

Port Adelaide

By whom made

Messrs. Poole & Steel

When made

1923

Boilers made at

Renfrew

By whom made

Messrs. Babcock & Wilcox Ltd

When made

(16. 11. 21)

Registered Horse Power

276

Owners

Commonwealth Line of Steamers Port belonging to Melbourne Vic.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY

Manufacturers of Steel

Stewarts & Lloyds
S. Colville & Sons

(Letter for Record

(5)

Date of Approval of plan

12th May 1921

Number and Description or Type

of Boilers

3 water tube Babcock & Wilcox

Working Pressure

180 lb./sq. in.

Tested by Hydraulic Pressure to

350 lb.

Date of Test

12th May 1922

No. of Certificate

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers

8289 sq. ft.

Is forced draught fitted

Assisted

Area of fire grate (coal) in each Boiler

84.5 sq. ft.

Total grate area of boilers in vessel including

Main and Auxiliary

253.5 sq. ft.

No. and type of burners (oil) in each boiler

Coal

No. and description of safety valves on

each boiler

Two

Area of each valve

9.62 sq. in.

Pressure to which they are adjusted

190 lb.

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

24 in. clear

Height of Boiler

10' 4"

Width and Length

12' 7" x 13' 3"

Steam Drums:—Number in each boiler

One

Inside diameter

4'-0"

Material of plates

Steel

Thickness

7/32" & 1"

Range of Tensile Strength

28/32 tons

Are drum shell plates welded or flanged

No

Description of riveting:—

Cir. seams

DR. Lap

long. seams

L. R. S. S. S.

Diameter of rivet holes in long. seams

27/32"

Pitch of Rivets

3 5/8"

Lap of plate (2) width of butt straps

15" (2) 4"

Thickness of straps

7/16"

Percentage strength of long. joint:—Plate

75.8

Rivet

75.5

Diameter of tube holes in drum

3 3/32"

Pitch of tube holes

4"

Percentage strength of shell in way of tubes

81.4

If Drum has a flat side state method of staying

Distance apart

Yes

Number and pitch of stays in each

Working pressure

by rules

Size of Manhole

Handhole 15" x 11" in cyl. end of shell

Water Drums:—Number in each boiler

One

Inside Diameter

6" (square section)

Material of plates

Steel

Thickness

3/4"

Range of tensile strength

24/28 tons

Are drum shell plates welded

or flanged

Yes

Description of riveting:—Cir. seams

long. seams

Diameter of Rivet Holes in

long. seams

Pitch of rivets

Lap of plates or width of butt straps

Thickness of straps

Percentage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Percentage strength of drum shell in way of tubes

43.5

Water Drum Heads or Ends:—Material

Steel

Thickness

3/4"

Radius or how stayed

Size of manhole or handhole

7/32"

Tested by Hydraulic Pressure to

540 lb./sq. in.

Material of Stays

Tubes:—Diameter

11 3/16" (2) 1 1/16"

None

Area at smallest part

Area supported by each stay

Working Pressure by Rules

Tubes:—Diameter

Thickness of shell plates

Material

Working Pressure of shell

by Rules

Crown or End Plates:—Material

Thickness

How stayed

SUPERHEATER. Type

None

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is easing gear fitted

Is a drain cock or valve fitted at lowest point of superheater

Number, diameter, and thickness of tubes

Spare Gear. Tubes

42 in. all

Gaskets or joints:—Manhole

36

Handhole

2000

Handhole plates

16

Included. But. & Bolted

The foregoing is a correct description,

Babcock & Wilcox Limited

(4) - Bedford

Manufacturer.

Dates of Survey

During progress of

work in shops

1921. Sep 16. Oct 16. Nov 14. 11. 8. 25

Is the approved plan of boiler forwarded herewith

Yes

while building

During erection on

board vessel

June 20. 23. July 7. 11. 14. 19. 24. 28. Aug 25. 29. 31. 1922

Total No. of visits

8

GENERAL REMARKS

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

These boilers have been partly built at this port under special survey: the materials & workmanship, so far as advanced, are good:— the headers & drum ends have been tested to 540 lb./sq. in. the steam drum shell plates & butt straps were examined after rolling to shape and the drum ends examined on completion of shaping & machining. No rivet holes filled. These parts have now been shipped to Messrs. Poole & Steel Port Adelaide South Australia to be fitted on completion into one of their vessels.

Survey Fee

£ 14 : 14 : 0

When applied for

14/3 1923

Travelling Expenses (if any) £

When received

191

Committee's Minute

FRI. 3 AUG. 1923

Assigned

See Add 846

Engineer Surveyor to Lloyd's Register of Shipping.

A. J. H. H. H.

H. H. H. H.

H. H. H. H.

H. H. H. H.

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Lloyd's Register of Shipping

Foundation

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