

REPORT ON WATER TUBE BOILERS.

No. 16550

Rpt. 5c.

Date of writing Report Oct 11 1919

When handed in at Local Office Oct 11 1919

Received at London Office

Port of New York

No. in Reg. Bk.

Survey held at

Bayonne N.J.

Date, First Survey

Nov. 21 1918

Last Survey

Sept. 30 1919

on the

S/S Abraham Lincoln

Number of Visits 46

Gross 8289

Net 6176

Master

W. A. Ryan

Built at

Glanville N.J.

By whom built

Pulley & Jones Co. Ltd. (Ct.)

When built

1919

Engines made at

Schenectady N.Y.

By whom made

General Electric Company

When made

1918

Boilers made at

Bayonne N.J.

By whom made

Babcock & Wilcox Co.

When made

1919

Registered Horse Power

Owners

Union Ferry Fleet Corporation

Port belonging to

Glanville City

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Cutler & Hammer Co.

Letter for Record

S.

Date of Approval of plan

July 12 1917

Number and Description or Type

of Boilers

3 Water tube

Working Pressure

200 lbs

Tested by Hydraulic Pressure to

400

Date of Test

No. of Certificate

368

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers

8766

Is forced draught fitted

Yes

Area of fire grate (coal) in each Boiler

87.5

Total grate area of boilers in vessel including

Main and Auxiliary

525

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

Five

No. and description of safety valves on

each boiler

double spring loaded

Area of each valve

7.06

Pressure to which they are adjusted

210 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

24"

Height of Boiler

12-10

Width and Length

4-7 1/2 x 11-7 1/2

Steam Drums:—

Number in each boiler

6

Inside diameter

42"

Material of plates

Steel

Thickness

1/2"

Range of Tensile Strength

55/65000 lbs.

Are drum shell plates welded or flanged

No

Description of riveting

Cir. seams

DR. LAP.

long. seams

DR. D. B. S.

Diameter of rivet holes in long. seams

29/32

Pitch of Rivets

2 1/2 x 4 1/2

width of butt straps

9 1/4 x 15

Thickness of straps

9/16"

Percentage strength of long. joint:—Plate

80/1

Rivet

108

Diameter of tube holes in drum

4 1/2"

Pitch of tube holes

7"

Percentage strength of shell in way of tubes

84/8

If Drum has a flat side state method of staying

Yes

Depth and thickness of girders at centre

if fitted

Yes

Distance apart

Yes

Number and pitch of stays in each

Yes

Working pressure

by rules

243 lbs.

Steam Drum Heads or Ends:—Material

Steel

Thickness

19/32

Radius or how stayed

42"

Size of Manhole

15" x 11"

Water Drums:—Number in each boiler

Yes

Inside Diameter

Yes

Material of plates

Yes

Thickness

Yes

Range of tensile strength

Yes

Are drum shell plates welded

Yes

or flanged

Yes

Description of riveting:—Cir. seams

Yes

long. seams

Yes

Diameter of Rivet Holes in

long. seams

Yes

Pitch of rivets

Yes

Lap of plates or width of butt straps

Yes

Thickness of straps

Yes

Percentage strength of long. joint:—Plate

Yes

Rivet

Yes

Diameter of tube holes in drum

Yes

Pitch of tube holes

Yes

Percentage strength of drum shell in way of tubes

Yes

Water Drum Heads or Ends:—Material

Yes

Thickness

Yes

Radius or how stayed

Yes

Size of manhole or handhole

Yes

Headers or Sections:—Number

24

Material

Steel

Thickness

9/16"

Tested by Hydraulic Pressure to

500 lbs.

Material of Stays

Yes

Area at smallest part

Yes

Area supported by each stay

Yes

Working Pressure by Rules

289 lbs.

Tubes:—Diameter

4"

Thickness

N.B. B.W.G.

Number

240

Steam Dome or Collector:—Description of Joint to Shell

Yes

Percentage strength of Joint

Yes

Diameter

Yes

Thickness of shell plates

Yes

Material

Yes

Description of longitudinal joint

Yes

Diameter of Rivet Holes

Yes

Pitch of Rivets

Yes

Working Pressure of shell

Yes

by Rules

Yes

Crown or End Plates:—Material

Yes

Thickness

Yes

How stayed

Yes

UPERHEATER.

Type

Date of Approval of Plan

Yes

Tested by Hydraulic Pressure to

Yes

Date of Test

Yes

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

Yes

Diameter of Safety Valve

Yes

Pressure to which each is adjusted

Yes

Is easing gear fitted

Yes

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

Yes

Number, diameter, and thickness of tubes

Yes

Spare Gear.

Tubes

Gaskets or joints:—Manhole

Yes

Handhole

Yes

Handhole plates

Yes

The foregoing is a correct description,

The Babcock & Wilcox Co. Manufacturer.

per W. H. Stubbard Marine Dept.

Dates During progress of work in shops 1919 Feb. 16, 17, 18, 19, 20, 21, 22, 23 April 19.

while During erection on board vessel

Is the approved plan of boiler forwarded herewith

Total No. of visits

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

The Workmanship and material are both of good quality. To complete the survey, boilers to be re-erected on board & tested by hydraulic pressure. All mounting to be examined & fitted. Safety valves to be adjusted under steam. Boilers now erected on board, mountings examined and fitted. Hydrostatic test of 410 lbs applied and safety valves adjusted to 210 lbs.

Survey Fee ... £ : : When applied for, 191

Travelling Expenses (if any) £ : : When received, 191

(Signed) A. Mac Watt. Adamson

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York OCT 21 1919

Assigned See Phil. Reg. 3474

Lloyd's Register Foundation

W 599-2145