

REPORT ON WATER TUBE BOILERS.

No. 2433

22 JAN 1932

Received at London Office

Date of writing Report 4 January 1932.

When handed in at Local Office 6th January 1932

Port of

Barrow.

No. in Survey held at

Reg. Bk.

5211

Survey held at Barrow.

Date, First Survey Sept 3, 1930

Last Survey 12 January 1932

Number of Visits 32

Gross 225444

Tons Net 13621

Master

Built at

Barrow.

By whom built

Vickers-Armstrongs Ltd

When built 1932

Engines made at

Rugby

By whom made

The British Thomson Houston Co. Ltd

When made 1932

Boilers made at

Barrow.

By whom made

Vickers-Armstrongs Ltd

When made 1932

NOMINAL Horse Power 6315

Owners Peninsular & Oriental S.N. Co. Ltd

Port belonging to London

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel English Steel Corporation, Yuba, British Magnesia

Letter for Record

S

Date of Approval of plan 5/3/30.

Number and Description or Type

Boilers Four Yarrow

Working Pressure 425 lb.

Tested by Hydraulic Pressure to 688 lb.

Date of Test 23/9/31

No. of Certificates 451 & 452

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers 50000 Sq. ft.

forced draught fitted

Area of fire grate (coal) in each Boiler

Yes

Total grate area of boilers in vessel including

Main and Auxiliary

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

4 Clyde

No. and description of safety valves on

each boiler Single 3 1/4" high lift

Area of each valve

8.29 sq. in.

Pressure to which they are adjusted 446 lb.

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers

on cranes and bunkers on woodwork

2'-0"

Height of Boiler 20'-1"

Width and Length 20'-1" x 14'-9"

Steam Drums:—Number in each boiler

One

Inside diameter

54"

Material of plates

Steel

Thickness 2 1/32"

Range of Tensile Strength

34 to 38 tons

Are drum shell plates welded or flanged

No

Description of riveting:—

r. seams Yarrow

long. seams

Solid

Diameter of rivet holes in long. seams

Yes

Pitch of Rivets

Yes

Up of plate or width of butt straps

Yes

Thickness of straps

Yes

Percentage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

1 3/8" & 2"

Pitch of tube holes 2 1/4", 3", 4 1/4"

Percentage strength of shell in way of tubes

33 1/3

Drum has a flat side state method of staying

Yes

Depth and thickness of girders at centre

fitted)

Yes

Distance apart

Yes

Number and pitch of stays in each

Working pressure

rules

Steam Drum Heads or Ends:—Material

Steel

Thickness

2"

Radius overhauled 54"

Size of Manhole or Handhole

16" x 12" each end

Water Drums:—Number in each boiler

Three

Inside Diameter

1 @ 36"

Material of plates

Steel

Thickness 2 1/4", 1 1/4" & 1 3/8"

Range of tensile strength

28 to 32 tons

Are drum shell plates welded

flanged

No

Description of riveting:—Cir. seams

Double

long. seams

Solid

Diameter of Rivet Holes in

long. seams

Yes

Pitch of rivets

Yes

Lap of plates or width of butt straps

Yes

Thickness of straps

percentage strength of long. joint:—Plate

Yes

Rivet

Yes

Diameter of tube holes in drum

Pitch of tube holes 2 1/4", 3", 4 1/4"

percentage strength of drum shell in way of tubes

33 1/3

Water Drum Heads or Ends:—Material

Steel

Thickness

2 1/4", 1 3/8"

radius overhauled

21 1/2" & 36"

Size of manhole or handhole

16" x 12"

Headers or Sections:—Number

Yes

Material

Yes

Thickness

Yes

Tested by Hydraulic Pressure to

Yes

Material of Stays

Yes

Area at smallest part

Yes

Area supported by each stay

Yes

Working Pressure by Rules

Yes

Tubes:—Diameter 1 3/8" & 2"

Thickness 121, 154, 198

Yes

Number 2849

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

Rules

Yes

Crown or End Plates:—Material

Yes

Thickness

How stayed

Yes

SUPERHEATER.

Type Yarrow

Date of Approval of Plan 5/3/30.

Tested by Hydraulic Pressure to 688 lb.

Date of Test 10/6/31

23/6/31 & 16/7/31

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

Cannot be shut off

Diameter of Safety Valve

Double 3 1/2" high lift

Pressure to which each is adjusted

425 lb.

Is easing gear fitted

Yes

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

Yes

Number, diameter, and thickness of tubes 1030, - 1 1/8" - 948 lb.

Compare Gear. Tubes 200

Gaskets or joints:—Manhole

No

Handhole

Yes

MANHOLE Handhole plates 10

The foregoing is a correct description,

G. Johnson for Vickers-Armstrongs Ltd. Manufacturer.

Dates

During progress of 1930—Sept 3, 17, 26. Nov 5, 1931—Mar 5, 12, Apr 24, 29

Is the approved plan of boiler forwarded herewith

Yes

Survey

work in shops - May 1, 15, 19, June 2, 19, 25, July 3, 16, Aug 17, 21.

Total No. of visits

32

while

During erection on board vessel - Sept 3, 14, 23, Oct 6, 13, Nov 5, 16, 24, 27, Dec 21

building

1932—Jan 6, 10, 13, 14

GENERAL REMARKS

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

These boilers have been built in accordance

with the approved plans and the Rules. The material and workmanship are good. They have been efficiently fixed and mounted, and their safety valves adjusted under steam.

Survey Fee £

When applied for,

10

Travelling Expenses (if any) £

When received,

10

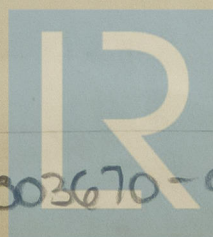
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 26 JAN 1932

Assigned

See F. C. Rpt



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