

REPORT ON WATER TUBE BOILERS.

No.

Received at London Office

YOKOHAMA & KOBE

of writing Report 2nd June 1956

When handed in at Local Office

19

Port of

YOKOHAMA & KOBE

o. in Survey held at

Hitachi and Yokohama and Innoshima

Date, First Survey

18th August 1955

Last Survey

31st July 1956

g. Book.

(Number of Visits 72)

Gross 20888.30

Net 15207.50

on the

Steel Single Screw S.S. "Naess. Venturer"

Tons

ilt at Innoshima, Japan

By whom built

Hitachi Shipbuilding & Engineering Co., Ltd., Innoshima Shipyard

Yard No. 3777

When built

7Mo. 1956

ines made at

Hitachi, Japan

By whom made

Hitachi Works, Hitachi Ltd.

Engine No. M-150

When made

4Mo. 1956

lers made at

Hitachi & Yokohama, Japan

By whom made

assembled by Babcock Hitachi, Yokohama

Boiler No. BHC3172-1

When made

3Mo. 1956

iminal Horse Power

3,000

Owners

Port belonging to

Monrovia

ATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Yawata Iron & Steel Co., Ltd. & Nagasaki Steel Mfg. Co., Ltd., Nagasaki Wks.

te of Approval of plan 4 - 10 - 55 10 - 2 - 56 (Safety Valve)

Boilers 2-Babcock & Wilcox Integral Furnace

Working Pressure 700 lb./sq. in.

Tested by Hydraulic Pressure to

1,100 lb./sq. in.

No. and Description or Type

Boiler 8520 x 2=17040 ft²

Superheater 1300 x 2=2600 ft²

Economizer 4978 x 2=9956 ft²

of Certificate YBC-76 & 77

Can each boiler be worked separately. Yes

Total Heating Surface of Boilers

forced draught fitted

Yes

Area of Fire Grate (coal) in each Boiler

and type of burners (oil) in each boiler

4 - "Todd" pressure atomising

No. and description of safety valves on

ch boiler 2 - 2" Consolidated Safety Valve

Area of each set of valves per boiler

per rule as approved

1.287 in² x 2

Pressure to which they

ufacture adjusted

Are they fitted with easing gear

Yes

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

Height of boiler 16 ft

donkey boiler

Smallest distance between boilers or uptakes and bunkers or woodwork

width and length 22 ft x 18 ft

Steam Drums

Number in each boiler 1

Inside diameter 48"

ickness of plates Tube plate 4.33"

Shell plate 1.26"

Range of tensile strength Tube plate 32.0-32.7 T/in²

Shell plate 32.0-32.8 T/in²

Are drum shell plates welded

flanged Welded

If fusion welded, state name of welding firm

Hitachi Works, Hitachi Ltd.

Have all the requirements of the Rules

Class I vessels been complied with

Yes

Description of riveting:—Circ. seams

long. seams

iameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

g. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

percentage strength of shell in way of tubes

Rivet

Steam Drum Heads or Ends:—Range of tensile strength 31.9-31.8 T/in²

ickness of plates 2 3/8"

Radius of how stayed

Dishing

Size of manhole or handhole 12" x 16"

Water Drums:—Number

each boiler 1

Inside diameter 30"

Thickness of plates

Shell plate 31.7-32.3 T/in²

Are drum shell plates welded

added or flanged

Welded

If fusion welded, state name of welding firm

Hitachi Works, Hitachi Ltd.

Have all the requirements of the Rules

Class I vessels been complied with

Yes

Description of riveting:—Circ. seams

long. seams

iameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

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

Rivet

Water Drum Heads or Ends:—Range of tensile strength 30.75-31.4 T/in²

ickness of plates 1.77"

Radius of how stayed

Dishing

Size of manhole or handhole 12" x 16"

Are drum shell plates welded

aders or Sections:—Number

3

Material forged steel

Thickness 15/16" 1 3/16"

Tested by hydraulic pressure to 1,100 lb./sq. in.

bes:—Diameter 1.25" 2.0" 3.25"

Thickness 0.126" 0.177" 0.256"

Number 1699

Steam Dome or Collector:—Description of

nt to shell

Inside diameter

Thickness of shell plates

Range of tensile

ngth

Description of longitudinal joint

126 in plan

If fusion welded, state name of welding

Have all the requirements for the Rules for Class I vessels been complied with

Yes

Diameter of rivet holes

ch of rivets

Thickness of straps

Percentage strength of long. joint

plate rivet

own or End Plates:—Range of tensile strength

Thickness

Radius or how stayed

PERHEATER, Drums or Headers:—Number in each boiler

2

Inside diameter 7.875"

ickness 1 3/16"

Material 1/2 Mo. steel

Range of tensile strength 30.2-32.8 T/in²

Are drum shell plates welded

flanged Solid

If fusion welded, state name of welding firm

Have all the requirements of the Rules

Class I vessels been complied with

Description of riveting:—Circ. seams

long. seams

iameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

g. joint:—Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Percentage strength of

um shell in way of tubes

28.5%

Drum/Heads or Ends:—Header end

Thickness 1 3/16"

Range of tensile strength 31.9-31.5 T/in²

dius or how stayed

Size of manhole or handhole 92.5mm

Number, diameter, and thickness of tubes 195 1 1/8" O.D. 1/8" T

ted by hydraulic pressure to 1,100 lb./sq. in.

Date of test 11-1-56

Is a safety valve fitted to each section of the superheater which

be shut off from the boiler can not shut off

be shut off from the boiler

can not shut off

No. and description of safety valves 1-2 1/2" Consolidated Safety Valve

Area of each set

valves 1.840 in²

Pressure to which they are adjusted

Drum 700, Sup. 618 #/in²

Is easing gear fitted

Yes

Temp. 850°F

are Gear. Has the spare gear required by the Rules been supplied

Yes

and

S. Akamatsu, Manager, Innoshima Shipyard

The foregoing is a correct description, ASSISTANT MANAGER, HITACHI WORKS, HITACHI LTD. Manufacturer.

ates

During progress of

work in shops

1955:-

Aug. 18.27. Sep. 10.20. Oct. 1.4.6.8.9.13.11.15.18.20.24.26.28

Nov. 1.7.9.11.13.15.18.21.23.25.28.30

Is the approved plan of boiler forwarded herewith

urvey

During erection on

board vessel

1956:-

May. 11.16.21.26. June 2.8.16.22.29

July 2.9.13.16.17.20.25.27.29.30.31.

Jan. 6.9.11.13.16.25.27. Feb. 3.8.9.17.

ile

During erection on

board vessel

1956:-

May. 11.16.21.26. June 2.8.16.22.29

July 2.9.13.16.17.20.25.27.29.30.31.

Mar. 6.17. Total No. of visits 72

ding

During erection on

board vessel

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May. 11.16.21.26. June 2.8.16.22.29

July 2.9.13.16.17.20.25.27.29.30.31.

Mar. 6.17. Total No. of visits 72

his boiler a duplicate of a previous case

No

If so, state vessel's name and report No.

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c. These Boilers have been constructed under Special Survey

accordance with the Rules, Approved plans and Secretary's letters.

The quality of workmanship and materials have been found satisfactory.

It is submitted that these boilers are eligible for classification with this Society with the notation of LMC when

satisfactorily installed in the vessel and the safety valves adjusted under steam. These Boilers were installed in the ship

accordance with the Rules, the safety valves were adjusted under steam and accumulation test were carried out and found

satisfactory.

Survey Fee

£ 376;600.-

When applied for 30th March 1956

Travelling Expenses (if any) £

When received 19

When received 19

TUESDAY 18 DEC 1956

Date

Committee's

minute

See Rpt. 1

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation