

Rpt. 5c.

PRIMARY SECTION OF

REPORT ON WATER TUBE BOILERS.

No. FE-1960

Date of writing Report 25th Feb. 1962

When handed in at Local Office

Received at London Office

No. in Survey held at

Hiroshima, Japan

19

Port of Shimonoseki

Reg. Book.

Date, First Survey 11th May, 1961

Last Survey 23rd February 1962

on the

Motor Tanker "LUGANSK"

(Number of Visits 72)

Gross 22,262.48

Built at Hiroshima, Japan

By whom built Mitsubishi Shipbuilding & Eng. Co., Ltd., Hiroshima Works

Yard No. S-145

Tons Net 15,397.05

Engines made at Hiroshima, Japan

By whom made Mitsubishi Shipbuilding & Eng. Co., Ltd., Hiroshima Works

Engine No. 21

When built 2 - 1962

Boilers made at Hiroshima, Japan

By whom made Mitsubishi Shipbuilding & Eng. Co., Ltd., Hiroshima Works

Boiler No. 87, 88

When made 9 - 1961

HS for Register Book 7082 sq.ft.

Owners V/O "SUDOIMPORT"

Port belonging to Odessa

WATER TUBE BOILERS MAIN, AUXILIARY, OR DONKEY.

Date of Approval of plan 27th May, 1961

26th June, 1961

Plates: Fuji Iron & Steel, Hiroshima Works

Tubes: Sumitomo Metal Ind. Amagasaki & Yawata Works

of Boilers 2 - Mitsubishi Hiroshima Double Evaporation Water Tube Boiler

Working Pressure 55 Kg/cm²Tested by Hydraulic Pressure to 86 Kg/cm²

No. and Description or Type

No. of Certificate I-11797

Can each boiler be worked separately. Yes

Total Heating Surface of Boilers 219 m²

Date of Test 13, 15-9-1961

Half Economisers 90 m²

Is forced draught fitted. Yes

Area of Fire Grate (coal) in each Boiler

Superheaters None

No. and type of burners (oil) in each boiler 3 - "Volcano"

Pressure Jet Oil Burner

Lift Type 2 - Single Spring Loaded Improved High

Area of each set of valves per boiler

per rule 2,630 mm²

No. and description of safety valves on

Are they fitted with easing gear. Yes

as fitted 3,780 mm²

Pressure to which they

Smallest distance between boilers or uptakes and bunkers or woodwork 860 mm

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

Width and length 3,930mm 3,945mm

Steam Drums: Number in each boiler 1

Height of boiler (3,255mm total)

Thickness of plates 22 mm 40 mm

Range of tensile strength 50.1 Kg/mm² 44.1-48.6 Kg/mm²

Inside diameter 650mm 641

flanged Welded

If fusion welded, state name of welding firm Mitsubishi Shipbuilding & Engineering Co., Ltd., Hiroshima Works

Are drum shell plates welded

Class I vessels been complied with Yes

Description of riveting: Circ. seams long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

Percentage strength of shell in way of tubes 51.5%

Diameter of tube holes in drum 38.6 & 89.8mm

Pitch of tube holes 40 & 160mm

Thickness of plates 26 mm

Radius or how stayed 450 mm

Range of tensile strength 49.1 Kg/mm²

each boiler 1

Inside diameter 650mm 641

Thickness of plates 22mm 40mm

Range of tensile strength 44.1-48.6 Kg/mm²

Welded

If fusion welded, state name of welding firm Mitsubishi Shipbuilding & Engineering Co., Ltd., Hiroshima Works

Are drum shell plates welded

Class I vessels been complied with Yes

Description of riveting: Circ. seams long. seams

Diameter 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 38.6 & 89.8mm

Percentage strength of drum shell in way of tubes 51.5%

Radius or how stayed 450 mm

Range of tensile strength 49.1 Kg/mm²

Thickness of plates 26 mm

Material 3.5 mm 6.5 mm

Number 410 & 17

Leaders or Sections: Number

Material

Thickness

Tested by hydraulic pressure to

Diameter 38.1 mm 88.9 mm

Thickness

Number 410 & 17

Steam Dome or Collector: Description of

Description of longitudinal joint

Range of tensile

If fusion welded, state name of welding

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

Diameter of rivet holes

plate rivet

Crown or End Plates: Range of tensile strength

Thickness

Radius or how stayed

SUPERHEATER, Drums or Headers: Number in each boiler

Material

Inside diameter

Are drum shell plates welded

or flanged

If fusion welded, state name of welding firm

Have all the requirements of the Rules

For Class I vessels been complied with

Description of riveting: Circ. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Thickness of straps

Percentage strength of

ong. joint: Plate

Rivet

Diameter of tube holes in drum

Pitch of tube holes

Drum shell in way of tubes

Thickness

Range of tensile strength

Percentage strength of

Radius or how stayed

Size of manhole or handhole

Number, diameter, and thickness of tubes

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

Tested by hydraulic pressure to

Date of test

No. and description of safety valves

Area of each set

Can be shut off from the boiler

Pressure to which they are adjusted

Is easing gear fitted

Has the spare gear required by the Rules been supplied Yes

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

Yes

Is easing gear fitted

The foregoing is a correct description,

S. Iwasaki

Mitsubishi Shipbuilding & Engineering Co., Ltd.

Hiroshima Works

Is the approved plan of boiler forwarded herewith No

Total No. of visits 72

1961 - May 11, 19, 30; June 14, 16, 20, 22, 23, 26

Dates

During progress of work in shops

28, 29; July 1, 3, 5, 6, 11, 12, 13, 14, 15, 18, 19, 21

19, 21, 22, 23, 24, 25, 26, 29, 30; Sept. 1, 2, 4, 6, 7, 8, 9, 12, 13, 15

1962 - Feb. 6, 9, 12, 13, 14, 15, 16

1961 - Oct. 5

1962 - Jan. 9, 13, 22; Feb. 6, 9, 14, 19, 20, 21, 23

Is this 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 and installed under special survey in accordance with the Rules, Approved Plans and Secretary's letters. The materials and workmanship are good. The boilers have been examined under steam, accumulation tests carried out and safety valves adjusted to 782 lb/in² and found satisfactory.

Survey Fee ... £ 213,000

Travelling Expenses (if any) £

When applied for 19

When received 19

Date FRIDAY 27 APR 1962

Committee's

Minute

P. Manson, W.A. Cook, J. Nonomura, K. Tabuchi, Y. Kojima, K. Yamazaki

013322-013328-0190