

## REPORT ON WATER TUBE BOILERS.

No. 967.

Received at London Office

20 JUN 1927

of writing Report 5th June 1927 When handed in at Local Office

19

Port of

Bremen

No. in  
Bk.

Survey held at

Bremen

Date, First Survey

7th Sept 1926

Last Survey

3rd June 1927

1927

(Number of Visits 10)

Gross 6370

Net 3658

on the

Steel S. MITTELMEER

Built at

Bremen

By whom built

Deutsche Schiff- u. Maschinenbau A.G.  
Hamburg

When built

1926/27

Boilers made at

Bremen

By whom made

-H-

When made

1926/27

Boilers made at

-H-

By whom made

-H-

When made

1926/27

Registered Horse Power

✓

Owners

Bremmer Öl-Transport G.m.b.H.

Port belonging to

Bremen

## WATER TUBE BOILERS

MAIN, AUXILIARY, OR

DONKEY.

Manufacturers of Steel

Mannmann & Wirtz  
Hamburg

Boiler for Record

5

Date of Approval of plan

21st May 1926

Number and Description or Type

Boilers 2. Tabcoor Wilcox

Working Pressure

14 kg/cm<sup>2</sup>

Tested by Hydraulic Pressure to

24 kg/cm<sup>2</sup>

Date of Test

25/3/27

of Certificate

✓

Can each boiler be worked separately

Yes

Total Heating Surface of Boilers

100 sq. m.

Forced draught fitted

✓

Area of fire grate (coal) in each Boiler

Total grate area of boilers in vessel including

in and Auxiliary

✓

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

3. Vulkan-Type

No. and description of safety valves on

boiler

2. spring loaded

Area of each valve

2 x 5026 mm<sup>2</sup>

Pressure to which they are adjusted

14 kg/cm<sup>2</sup>

they fitted with easing gear

Yes

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

No

least distance between boilers or uptakes and bunkers or woodwork

560 mm.

Height of Boiler

4280 mm.

Width and Length

255 x 4740 mm.

Steam Drums:—Number in each boiler

1

Inside diameter

1800 mm.

Material of plates

J. M. steel

Thickness

21 mm.

Range of Tensile Strength

44-51 kg/cm<sup>2</sup>

Are drum shell plates welded or flanged

No

Description of riveting:—

seams

double

long. seams

double

Diameter of rivet holes in long. seams

23 mm.

Pitch of Rivets

81 mm.

Pitch of plate or width of butt straps

230 mm.

Thickness of straps

18 mm.

Percentage strength of long. joint:—Plate

71.6%

Rivet

75.1%

Diameter of tube holes in drum

95 mm.

Pitch of tube holes

160 x 195 mm.

Percentage strength of shell in way of tubes

51.4%

Drum has a flat side state method of staying

✓

Depth and thickness of girders at centre

fitted)

✓

Distance apart

Number and pitch of stays in each

Working pressure

rules

17.1 kg/cm<sup>2</sup>

Steam Drum Heads or Ends:—Material

J. M. steel

Thickness

20 x 23 mm.

Radius on how stayed

1170 mm.

e of Manhole or Handhole

300 x 400 mm.

Water Drums:—Number in each boiler

2

Inside diameter

170 mm.

Material of plates

J. M. steel

Thickness

19 x 22 mm.

Range of tensile strength

41-48 kg/cm<sup>2</sup>

Are drum shell plates welded

flanged

Yes

Description of riveting:—Cir. seams

single

long. seams

Diameter of Rivet Holes in

g. seams

26 mm.

Pitch of rivets

70 mm.

Lap of plates or width of butt straps

Thickness of straps

Percentage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

98 x 95 mm.

Pitch of tube holes

160 x 140 mm.

Percentage strength of drum shell in way of tubes

51.4%

Water Drum Heads or Ends:—Material

Thickness

Radius on how stayed

✓

Size of manhole or handhole

Headers or Sections:—Number

✓

Material

✓

Thickness

✓

Tested by Hydraulic Pressure to

Material of Stays

✓

Area at smallest part

✓

Area supported by each stay

Working Pressure by Rules

Tubes:—Diameter

Thickness

✓

Number

✓

Steam Dome or Collector:—Description of Joint to Shell

✓

Percentage strength of Joint

✓

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

✓

Diameter of Rivet Holes

Pitch of Rivets

Working Pressure of shell

Rules

✓

Crown or End Plates:—Material

Thickness

How stayed

✓

SUPERHEATER.

Type

✓

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

A drain cock or valve fitted at lowest point of superheater

✓

Number, diameter, and thickness of tubes

Gears.

Tubes

Gaskets or joints:—Manhole

Handhole

Handhole plates

The foregoing is a correct description,

Deutsche Schiff- und Maschinenbau Aktiengesellschaft

Manufacturer.

Work: Act. Gen. Wasser

Is the approved plan of boiler forwarded herewith

21/5/26.

Total No. of visits

10

Dates

During progress of

1926:—7/9, 11/10, 22/11, 1927:—5/2, 2/3, 25/3.

Survey

While

Building

During erection on

1927:—16/5, 27/5, 2/6, 3/6.

board vessel

GENERAL REMARKS

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

These boilers have been constructed

for Special Survey in accordance with the approved plan and instructions and in conformity with Rules. The materials used in the construction and the workmanship are good. They are eligible in my opinion to be classed in the Register Book with record of 199 lb.

Thickness of adjusting washers of safety valve Port Boiler: 25.4 mm. 25.4 mm.

Survey Fee ...

£ 8 : 8 :

When applied for,

5th June 1927

Travelling Expenses (if any) £

:

When received,

30/6/1927

G. H. C. HAM

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned