

REPORT ON WATER TUBE BOILERS.

No. 154

Received at London Office

JAN 31 1939

Date of writing Report 11 Sept 1939

When handed in at Local Office 13 Sept 1939

Port of

Danzig

No. in
Reg. Bk.

Survey held at

Danzig

Date, First Survey

25th January 38

Last Survey

25 Jan 1939

continued attendance till 12.9.39

on the Steel Twin Screw Drag Suction Hopper Dredger "Fu Shing"

Number of Visits

Tons

Gross

Net

Master

Built at

Danzig

By whom built

F. Schichau G.m.b.H.

When built

1938

Engines made at

Elbing

By whom made

F. Schichau G.m.b.H.

When made

1938

Boilers made at

Oberhausen

By whom made

Deutsche Babcock & Wilcox
Dampfessel-Werke A.G.

When made

1938

Registered Horse Power

4000

Owners

Whangpoo Conservancy Board

Port belonging to

Shanghai.

WATER TUBE BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~

Manufacturers of Steel

Maschinenbau-Röhrenwerke

Deutsche Röhrenwerke

Krupp-Werke, Mannesmann-Werke

(Letter for Record W. T.)

Date of Approval of plan

25.5/25.6/11.8/10.12/37 & 8.3.38

Number and Description or Type

of Boilers 4 Babcock Wilcox Type W.T. Boilers

Working Pressure 245 lbs

Tested by Hydraulic Pressure to

418 lbs

Date of Test 12.5/24.5/25.5.38

No. of Certificate

12-13-14-15

Can each boiler be worked separately

yes

Total Heating Surface of Boilers

4200 sq feet

Is forced draught fitted

yes

Area of fire grate (coal) in each Boiler

104 sq feet

Total grate area of boilers in vessel including

Main and Auxiliary

416 sq feet

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

Griffiths mechanical

No. and description of safety valves on

each boiler

1 double, spring loaded, high lift S.V. Area of each valve

2 x 5842 mm²

Pressure to which they are adjusted

245 lbs

Are they fitted with casing gear

yes

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

no donkey b.

Smallest distance between boilers or uptakes and bunkers or woodwork

4160 mm

Height of Boiler

6050 mm

Width and Length

6600 x 4000 mm

Steam Drums:—Number in each boiler

1

Inside diameter

1052 mm

Material of plates

S.M. Steel

Thickness

24 mm

Range of Tensile Strength

44-50.3 kg/mm²

Are drum shell plates welded

electric fusion

Description of riveting:—

Cir. seams

electric fusion

long. seams

Diameter of rivet holes in long. seams

Pitch of Rivets

Lap of plate or width of butt straps

Thickness of straps

Percentage strength of long. joint:—Plate

Rivet

Diameter of tube holes in drum

102.7 mm

Pitch of tube holes

178 mm

Percentage strength of shell in way of tubes

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

yes

Steam Drum Heads or Ends:—Material

S.M. Steel

Thickness

23 mm

Radius or how stayed

280 mm

Size of Manhole

Handhole 300 x 400 mm

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

Handhole Sections:—Number

4 x 48

Material

S.M. Steel

Thickness

14 mm

Tested by Hydraulic Pressure to

50 kg/cm²

Material of Stays

yes

Area at smallest part

yes

Area supported by each stay

yes

Working Pressure by Rules

yes

Tubes:—Diameter

44.5-42.2 mm

Thickness

35/46/54.5/6.5 mm

Number

4 x 824

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

SUPERHEATER.

Type

Single coils

Date of Approval of Plan

22.6.37

Tested by Hydraulic Pressure to

24 kg/cm²

Date of Test

19.11.37

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

yes

Diameter of Safety Valve

84 mm

Pressure to which each is adjusted

245 lbs

Is easing gear fitted

yes

Is a drain valve fitted at lowest point of superheaters

yes

Number, diameter, and thickness of tubes

4 x 40

of 38 mm dia.

3.75 mm

thickness

yes

Spare Gear.

Tubes

42

Gaskets or joints:—Manhole

yes

Handhole

20W

Handhole plates

10

F. Schichau
G.m.b.H.

The foregoing is a correct description,

Manufacturer.

Dates

of Survey

while

building

During progress of

see Disseldorf Report No 247

work in shops

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During erection on

continued attendance from 25th Jan. till

Is the approved plan of boiler forwarded herewith

no

14th Sept. 1939

Total No. of visits

GENERAL REMARKS

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

The boilers have been installed on board

the vessel under the supervision of the Society's Surveyors and the requirements of the Rules have been complied with in every respect. The workmanship was found to be of best quality.

After erection the boilers have been tested hydraulically to 418 lbs per square inch and were found sound and tight at pressure. When completed the boilers were examined under steam,

Survey Fee

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...

£ please see

When applied for,

19

Travelling Expenses (if any)

£

Disseldorf

When received,

19

Report No. 247

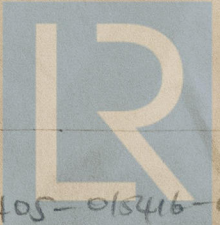
Committee's Minute

Assigned

TUE 28 FEB 1939

See Eng. J.E. 154

Engineer Surveyor to Lloyd's Register of Shipping.



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015405-015416-0122

See attached Disseldorf Report No 247.

the safety valves adjusted to 245 lbs per square inch and afterwards subjected to the accumulation test with satisfactory results.

The boilers of this vessel are in my opinion eligible to be classed in the Society's Register Book with record, " + L. M. C with date " to be assigned by the Committee.

J. M. M. M.
SURVEYOR TO LLOYDS REGISTER



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