

REPORT ON WATER TUBE BOILERS.

No. 19576

Received at London Office

23 OCT 1930

Date of writing Report 16th Oct. 1930 When handed in at Local Office

19

Port of HAMBURG

No. in Survey held at KIEL

Date, First Survey 11th Aug 1930 Last Survey 6th Oct. 1930

Reg. Bk.

on the M.S. J.H. SENIOR

(Number of Visits 7)

Tons } Gross
Net

Master Built at EMDEN By whom built NORDSEEWERKE 173 When built

Engines made at KIEL By whom made FRIED. KRUPP-GERMANIAWERFT A.G. When made 1930

Boilers made at KIEL By whom made FRIED. KRUPP-GERMANIAWERFT A.G. When made 1930

Registered Horse Power 1496

Owners HANDED SHIPPING Co.

Port belonging to DANZIG

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Messrs. Ruhrstahl A.G. Henrichshütte Hattingen

(Letter for Record 5) Date of Approval of plan 14.5.30

Number and Description or Type

of Boilers 2 Water Tube Donkey Boilers Working Pressure 200 lbs Tested by Hydraulic Pressure to 400 lbs Date of Test 3.10.30

No. of Certificate 523/24 Can each boiler be worked separately yes

Total Heating Surface of Boilers 2 x 192 m²

Is forced draught fitted yes Area of fire grate (coal) in each Boiler

Total grate area of boilers in vessel including

Main and Auxiliary No. and type of burners (oil) in each boiler 2 of Todd System

No. and description of safety valves on

each boiler 2 spring loaded

Area of each valve 2 x 5026 m²

Pressure to which they are adjusted

Are they fitted with easing gear yes

In case of donkey boilers state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork

Height of Boiler 5320 mm Width and Length 4300/3820 mm

Steam Drums:—Number in each boiler 1

Inside diameter 1100 mm

Material of plates 1. m. Steel

Thickness 15 mm

Range of Tensile Strength 44-55 kgp/cm²

Are drum shell plates welded or flanged flanged

Description of riveting:—

Cir. seams lap double long. seams dk. butt strap

Diameter of rivet holes in long. seams 24 mm

Pitch of Rivets 82 mm

Lap of plate or width of butt straps 230/150 mm

Thickness of straps 14/15 mm

Percentage strength of long. joint:—Plate 70% Rivet 112%

Diameter of tube holes in drum 102.5/104.5 mm

Pitch of tube holes 176 mm

Percentage strength of shell in way of tubes 40.5%

If Drum has a flat side state method of staying

Depth and thickness of girders at centre

(if fitted)

Distance apart

Number and pitch of stays in each

Working pressure

by rules 14.9 kgp/cm²

Steam Drum Heads or Ends:—Material 1. m. Steel

Thickness 20.5/18.5 mm

Radius or how stayed R = 900 mm

Size of Manhole or Handhole 300 x 400 mm

Water Drums:—Number in each boiler

Inside Diameter

Material of plates

Thickness

Range of tensile strength

Are drum shell plates welded

or flanged

Description of riveting:—Cir. seams

long. seams

Diameter of Rivet Holes in

long. seams

Pitch of rivets

Lap of plates or width of butt straps

Thickness of straps

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

Water Drum Heads or Ends:—Material

Thickness

Radius or how stayed

Size of manhole or handhole

Headers or Sections:—Number 17

Material 1. m. Steel

Thickness 14 mm

Tested by Hydraulic Pressure to 400 lbs

Material of Stays

Area at smallest part

Area supported by each stay

Working Pressure by Rules

Tubes:—Diameter 102 mm

Thickness 4.5/5.0 mm

Number 221

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

by 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

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

Number, diameter, and thickness of tubes

Spare Gear. Tubes 24

Gaskets or joints:—Manhole 10

Handhole

Handhole plates 14

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of 11th Aug. 3. 17. 26. Sept. 1. 3. 6. Oct. 1930 Is the approved plan of boiler forwarded herewith yes
 while } During erection on
 building } board vessel

Total No. of visits 7

GENERAL REMARKS

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

These Boilers have been constructed under Special Survey in accordance with the requirements of the Rules and the approved plans. Materials & workmanship are of good quality. The boilers have been shipped to Emden

marked: No. 523/24
 Lloyd's Test
 400 lbs
 W.P. 200 lbs
 A.C. 2. 10. 30

Survey Fee

£ 21 : - : }

When applied for,

18. 10. 1930

Travelling Expenses (if any) £

- : - : }

When received,

25. 11. 1930

A. Carstensen

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 5 MAY 1931

Assigned

See J.B. Rep