

## REPORT ON BOILERS.

No. 1306.

12 NOV 1930

Received at London Office

12 NOV 1930

Date of writing Report 30th Oct 1930 When handed in at Local Office

19

Port of Bremen

No. in  
Reg. Book

Survey held at

Vegorack

Date, First Survey 3rd Oct.

Last Survey

29th Oct.

1930

90836 on the STEEL TWS "HEINRICH v. RIEDEMANN"

# (Number of Visits)

5

Gross 12175

Tons Net 6974

Built at

Vegorack

By whom built

Kramer Vulkan

Yard No.

694

When built

1930

Engines made at

Vegorack

By whom made

Kramer Vulkan

Engine No.

265/70

When made

1930

Boilers made at

Sheffield

By whom made

Messrs. Dary &amp; Co. Ltd.

Boiler No.

3126/7

When made

1930

Owners

Kathion - America Petroleum Import &amp; Co. Ltd.

Port belonging to

Tanjung

## VERTICAL DONKEY BOILER.

Made at

Sheffield

By whom made

Dary &amp; Co.

Boiler No.

3126

When made

1930

Where fixed

Top part of engine space.

Manufacturers of Steel

Park Gate Iron &amp; Steel Co.

Total Heating Surface of Boiler

270 sq. ft.

Is forced draught fitted

✓

Coal or Oil fired

Lignite-gas

No. and Description of Boilers

2 Clarkson Thimble Tube

Working pressure

100 lbs.

Tested by hydraulic pressure to

200 lbs.

Date of test

15th Sep. 1930

No. of Certificate

527-528

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

One 2" donkey spring

Area of each set of valves per boiler

per rule 3.51 sq. ft.  
as fitted 6.28 sq. ft.

Pressure to which they are adjusted

100 lbs.

Are they fitted with easing gear

Yes

State whether steam from main boilers can enter the donkey boiler

✓

Smallest distance between boiler or uptake and bunkers

or woodwork

✓

Is oil fuel carried in the double bottom under boiler

✓

Smallest distance between base of boiler and tank top plating

✓

Is the base of the boiler insulated

Lagged

Largest internal dia. of boiler

5'0"

Height

9'3 3/8"

Shell plates: Material

O.H. Steel

Tensile strength

28-32 T./sq. in.

Thickness

7/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

top & bottom 9.2. lap  
inter. 9.2. lap

long. seams 9.2. lap

Dia. of rivet holes in

circ. seams 13/16"  
long. seams 13/16"

Pitch of rivets

17/8"  
2.6 x 2.66"

Percentage of strength of circ. seams

plate 56  
rivets 51

of Longitudinal joint

plate 69  
rivets 74  
combined ✓

Working pressure of shell by rules

133 lbs.

Thickness of butt straps

outer ✓  
inner ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat

dished

Material

O.H. Steel

Tensile strength

26-30 T./sq. in.

Thickness

9/16"

Radius

4'-6"

Working pressure by rules

122 lbs.

Description of Furnace: Plain, spherical, or dished crown

dished crown

Material

O.H. Steel

Tensile strength

26-30 T./sq. in.

Thickness

13/16"

External diameter

top 4'-15 1/8"  
bottom 4'-15 1/8"

Length as per rule

4'-6 1/4"

Working pressure by rules

127 lbs.

Pitch of support stays circumferentially

✓

and vertically

✓

Are stays fitted with nuts or riveted over

✓

Diameter of stays over thread

✓

Radius of spherical or dished furnace crown

3'-8"

Working pressure by rule

117 lbs.

Thickness of Ogee Ring

✓

Diameter as per rule

D ✓  
d ✓

Working pressure by rule

✓

Combustion Chamber: Material

✓

Tensile strength

✓

Thickness of top plate

✓

Radius if dished

✓

Working pressure by rule

✓

Thickness of back plate

✓

Diameter if circular

✓

Length as per rule

✓

Pitch of stays

✓

Are stays fitted with nuts or riveted over

✓

Diameter of stays over thread

✓

Working pressure of back plate by rules

✓

Tube Plates: Material

front O.H. Steel  
back O.H. Steel

Tensile strength

26-30 T.

Thickness

13/16"

Mean pitch of stay tubes in nests

✓

If comprising shell, Dia. as per rule

front ✓  
back ✓

Pitch in outer vertical rows

3"

Dia. of tube holes FRONT

stay 2 3/4"  
plain 2 3/4"BACK stay  
plain

Is each alternate tube in outer vertical rows a stay tube

✓

Working pressure by rules

front ✓  
back ✓

Girders to combustion chamber tops: Material

✓

Tensile strength

✓

Depth and thickness of girder at centre

✓

Length as per rule

✓

Distance apart

✓

No. and pitch of stays in each

✓

Working pressure by rule

✓

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Foundation

W44-0015



Crown stays: Material ☒ Tensile strength ☒ Diameter { at body of stay, ☒ or over threads ☒

No. of threads per inch ☒ Area supported by each stay ☒ Working pressure by rules ☒

Screw stays: Material ☒ Tensile strength ☒ Diameter { at turned off part, ☒ or over threads ☒ No. of threads per inch ☒

Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒

Tubes: Material *Steel* External diameter { *3 3/4" tapered to 2"* Thickness { *9 B.W.G.*

No. of threads per inch ☒ Pitch of tubes *5.57" circular 3" vertical* Working pressure by rules ☒

Manhole Compensation: Size of opening in shell plate *10" x 9"* Section of compensating ring *3" x 1 1/4"* No. of rivets and diameter of rivet holes *16-15/16"* Outer row rivet pitch at ends *2 3/4"* Depth of flange if manhole flanged ☒

Uptake: External diameter ☒ Thickness of uptake plate ☒

Cross Tubes: No. ☒ External diameters { ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *Yn*

The foregoing is a correct description,

*sgn. Garry Brothers, Limited*

Manufactured at

Dates of Survey { During progress of work in shops - - }  
while building { During erection on board vessel - - } *1930. Oct. 3, 11, 15, 23, 29*

Is the approved plan of boiler forwarded herewith *Yes* (If not state date of approval.) *Surveyor's Rpt. No. 42*  
Total No. of visits *5*

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

*Three vertical waste heat boilers have been constructed under Special Survey in accordance with the requirements of the Rules and the approved plans. They have been satisfactorily fitted on board examined under steam and found tight. Their safety valves have been adjusted to 100 lbs. per sq. inch.*

*Thickness of adjusting washers:- Starboard Boiler. Port Boiler.*

*Starboard .225" port .24" Starboard .23" port .23"*

*It is recommended that these boilers be eligible to be classed in the Register Book with the notation of 100 lbs.*

Survey Fee ... £ *2 : 0 :* When applied for, *4/11/30*  
Travelling Expenses (if any) £ *1 : 0 :* When received, *13.11.1930*

*G. H. C. Kamm*

Committee's Minute  
Assigned

TUE. 25 NOV 1930

*See other Bmn. J.E. Rpt. 1306*