

Rpt. 5a.

# REPORT ON BOILERS.

No. 50653

11 MAY 1940

14 MAY 1940

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

HULL

No. in  
Reg. Book.

Surrey held at

Hull

Date, First Survey

29. 3. 40 -

Last Survey

12. 5 1940

28717

on the single screw steamer

"EMPIRE GANNET" EX "LOUISIANAN"

(Number of Visits 27)

Gross 5672

Net 3445

Built at

Seattle, Wash.  
U.S.A.

By whom built

J. F. Duthie & Co.

Yard No.

When built 1919

Engines made at

Hamilton, Ohio.

By whom made

Hoover Owens, Rentschler & Co

Engine No.

When made 1919

Boilers made at

Portland, Oregon.

By whom made

Willamette Iron & Steel Works

Boiler No.

When made 1919

Nominal Horse Power

550

Owners

Ministry of Shipping

Port belonging to

London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

State to be

Manufacturers of Steel

Illinois Steel Co Chicago Ill & Lockens Steel Co. Coatesville Pa

(Letter for Record

5

Total Heating Surface of Boilers

2704 x 3 = 8112 sq. ft.

Is forced draught fitted

Yes

Coal or Oil fired

Oil fired

No. and Description of Boilers

3 Cylindrical Multitubular Single Ended

Working Pressure

210

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

56 sq. ft.

No. and Description of safety valves to each boiler

2 spring loaded ordinary type

Area of each set of valves per boiler

per Rule 15 sq. ins

as fitted 19

Pressure to which they are adjusted

210 lb.

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18" to metal casings

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

14'-9"

Length

11'-0"

Shell plates: Material

Steel

Tensile strength

Thickness

1 1/2"

Are the shell plates welded or flanged

Rivets

Description of riveting: circ. seams

end

inter.

Yes

long. seams double butt shape 3R

Diameter of rivet holes in

circ. seams 1 3/8"

long. seams 1 1/2"

Pitch of rivets

4 5/8"

Percentage of strength of circ. end seams

plate 70

rivets 43

Percentage of strength of circ. intermediate seam

plate 84.4

rivets 95

Percentage of strength of longitudinal joint

plate 84.4

rivets 95

combined

Boiler built in order for 210 lb. (See endorsement 27/3/40)

Thickness of butt straps

outer 1"

inner 1 1/2"

No. and Description of Furnaces in each Boiler

3 Morrison type

Material

Steel

Tensile strength

Smallest outside diameter

3'-9 1/16"

Length of plain part

top

bottom

Thickness of plates

crown 2 1/2"

bottom 2 1/32"

Description of longitudinal joint

Welded

Dimensions of stiffening rings on furnace or c.c. bottom

Yes

End plates in steam space: Material

Steel

Tensile strength

Thickness

1 1/4"

Pitch of stays 16 3/8 x 17 1/2"

How are stays secured

Double nuts

Tube plates: Material

front Steel

back Steel

Tensile strength

Thickness

13/16"

13/16"

Mean pitch of stay tubes in nests

12 3/8" x 8"

Pitch across wide water spaces

13" x 8"

Girders to combustion chamber tops: Material

Steel

Tensile strength

Depth and thickness of girder

at centre

11" x 1 1/2"

Length as per Rule

34"

Distance apart

8 3/16"

No. and pitch of stays

in each

4, 7 1/4"

Combustion chamber plates: Material

Steel

Tensile strength

Thickness: Sides 1 1/16"

Back 1 1/16"

Top 1 1/16"

Bottom 1 5/16"

Pitch of stays to ditto: Sides

7" x 8"

Back

7 1/4" x 7 3/4"

Top

8 3/16" x 7 1/4"

Are stays fitted with nuts or riveted over

Rivets over

Front plate at bottom: Material

Steel

Tensile strength

Thickness

13/16"

Lower back plate: Material

Steel

Tensile strength

Thickness

13/16"

Pitch of stays at wide water space

11 1/2" x 14"

Are stays fitted with nuts or riveted over

Nuts

Main stays: Material

Steel

Tensile strength

Diameter

At body of stay, 3 1/4"

Over threads 3 1/2"

No. of threads per inch

6

Screw stays: Material

Woot iron

Tensile strength

Diameter

At turned off part, 1 5/8"

Over threads 1 5/8"

No. of threads per inch

20



© 2020

Lloyd's Register Foundation

Margin stays: Diameter { At turned off part, 1 3/4"  
 or Over threads

Tubes: Material Steel External diameter 3" Thickness { 9 W.G.  
3" No. of threads per inch 10

No. of tubes 12" x 16" Boiler end plate flanges into steam space to form manhole  
 shell plate 12" x 16" Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓

Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 3 3/4 Steam Dome: Material ✓  
 Tensile strength \_\_\_\_\_ Thickness of shell \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_  
 Diameter of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Percentage of strength of joint { Plate \_\_\_\_\_  
 Rivets \_\_\_\_\_  
 Internal diameter \_\_\_\_\_ Thickness of crown \_\_\_\_\_ No. and diameter of stays \_\_\_\_\_  
 Inner radius of crown \_\_\_\_\_  
 How connected to shell \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater \_\_\_\_\_ Manufacturers of { Tubes \_\_\_\_\_  
 Steel forgings \_\_\_\_\_  
 Steel castings \_\_\_\_\_  
 Number of elements \_\_\_\_\_ Material of tubes \_\_\_\_\_ Internal diameter and thickness of tubes \_\_\_\_\_  
 Material of headers \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_ Can the superheater be shut off and the boiler be worked separately \_\_\_\_\_  
 Is a safety valve fitted to every part of the superheater which can be shut off from the boiler \_\_\_\_\_  
 Area of each safety valve \_\_\_\_\_ Are the safety valves fitted with easing gear \_\_\_\_\_  
 Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressure: \_\_\_\_\_  
 tubes \_\_\_\_\_ forgings and castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks or valves fitted to free the superheater from water where necessary \_\_\_\_\_  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with \_\_\_\_\_

The foregoing is a correct description, \_\_\_\_\_  
 Manufacturer.

Dates of Survey { During progress of work in shops 1940 Mar 29, 30, Apr 1, 2, 3, 4, 5, 6, 9, 12 Are the approved plans of boiler and superheater forwarded herewith yes  
 (If not state date of approval.)  
 During erection on board vessel - - - 15, 16, 17, 18, 20, 22, 23, 25, 26, May 1, 2, 3, 6, 9, 10, 11, 12. Total No. of visits 27 ✓

Is this Boiler a duplicate of a previous case \_\_\_\_\_ If so, state Vessel's name and Report No. \_\_\_\_\_

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

Material and workmanship appear good.  
The boilers, it was stated, were constructed under American Bureau classification.  
The scantlings of the boilers were carefully checked in far as practicable and found to substantially agree with the attached plan.  
In our opinion the boilers are eligible to be classed in the Register Book.

Survey Fee ... .. £ : : { When applied for, \_\_\_\_\_ 19 \_\_\_\_\_  
 Travelling Expenses (if any) £ : : { When received, \_\_\_\_\_ 19 \_\_\_\_\_

W. S. Shields & R. Clark Juniper  
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute \_\_\_\_\_  
 Assigned See repair rpt. Hull 5065-3