

## REPORT ON BOILERS.

No. 19905.

Received at London Office

6 FEB 1935

Date of writing Report 3.1.1935 When handed in at Local Office 2<sup>nd</sup> FEBRUARY 1935. Port of GreenockNo. in Survey held at  
Reg. Book.GreenockDate, First Survey 9<sup>th</sup> FEBRUARY 1934. Last Survey 2<sup>nd</sup> FEBRUARY 1935.

on the

M/S "SAN AMADO"

(Number of Visits ☒)

Gross

Tons

Net

Master

Built at

Glasgow

By whom built

Beggs & Wood M.L.

Yard No.

37

When built

1935

Engines made at

Greenock

By whom made

John & Kneaid & Co.

Engine No.

1778

When made

1935

Boilers made at

ditto

By whom made

ditto

Boiler No.

1778

When made

1935

Nominal Horse Power

Owners

Eagle Oil, Shipping Co. Ltd.

Port belonging to

LondonMULTITUBULAR BOILERS DONKEY.

Manufacturers of Steel

Solville, Steel Co. of Scotland

(Letter for Record

S

Total Heating Surface of Boilers

2920 sq ft

Is forced draught fitted

Yes

Oil fired

Oil

No. and Description of Boilers

2 Single Ended Dry Back

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

16-11-34

No. of Certificate

2032

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

Oil Fuel

No. and Description of safety valves to each boiler

Double Spring

Area of each set of valves per boiler

per Rule 10.8as fitted 11.8

Pressure to which they are adjusted

185

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

17'-0"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

24'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

12'-1"

Length

10'-3"

Shell plates: Material

S

Tensile strength

29,33

Thickness

1"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end DR

Long. seams

TR-D-B-S

Diameter of rivet holes in

circ. seams 1 1/16"long. seams 1 1/32"

Pitch of rivets

3057

Percentage of strength of circ. end seams

plate 65.2rivets 45-6

Percentage of strength of circ. intermediate seam

plate 85.25rivets 88-6

Percentage of strength of longitudinal joint

plate 88-6rivets 88.2

Working pressure of shell by Rules

186

Thickness of butt straps

outer 3/4"inner 7/8"

No. and Description of Furnaces in each Boiler

2 Morrison

Material

S

Tensile strength

26.30

Smallest outside diameter

3' 4"

Length of plain part

top ✓bottom ✓

Thickness of plates

crown 1/2"

Description of longitudinal joint

weld

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

✓

Working pressure of furnace by Rules

180

End plates in steam space: Material

S

Tensile strength

26.30

Thickness

13/8"

Pitch of stays

22"

How are stays secured

D.N. Washers

Working pressure by Rules

219

Tube plates: Material

front Sback S

Tensile strength

26-30

Thickness

front 15/16"back 15/16"

Mean pitch of stay tubes in nests

9.375

Pitch across wide water spaces

14 1/2"

Working pressure

front 193back 193

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 Rules

✓

Combustion chamber plates: Material

✓

Tensile strength

✓

Thickness: Sides

✓

Back

✓

Top

✓

Bottom

✓

Pitch of stays to ditto: Sides

✓

Back

✓

Top

✓

Are stays fitted with nuts or riveted over

✓

Working pressure by Rules

✓

Front plate at bottom: Material

S

Tensile strength

26.30

Thickness

15/16"

Lower back plate: Material

S

Tensile strength

26-30

Thickness

15/16"

Pitch of stays at wide water space

1'-2 1/2"

Are stays fitted with nuts or riveted over

✓

Working Pressure

✓

Main stays: Material

S

Tensile strength

28.32

Diameter

At body of stay, 33/8"or Over threads ✓

No. of threads per inch

6

Area supported by each stay

484 sq in

Working pressure by Rules

181

Screw stays: Material

✓

Tensile strength

✓

Diameter

At turned off part, ✓or Over threads ✓

No. of threads per inch

✓

Area supported by each stay

✓

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Working pressure by Rules ✓ Are the stays drilled at the outer ends ✓ Margin stays: Diameter { At turned off part, or Over threads ✓  
No. of threads per inch ✓ Area supported by each stay ✓ Working pressure by Rules ✓  
Tubes: Material S External diameter { Plain } 2 1/2" Thickness { 9 WG } 3/8 5/16 No. of threads per inch 9  
Pitch of tubes 33 1/4" - 33 1/4" ✓ Working pressure by Rules 187 Manhole compensation: Size of opening in shell plate 16 1/2 - 20 1/2" Section of compensating ring 2-10 1/2 - 2-6 1/2 - 1 1/6 No. of rivets and diameter of rivet holes 38 at 1 1/4"  
Outer row rivet pitch at ends 8 ✓ Depth of flange if manhole flanged 3 1/2" ✓ 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 Working pressure by Rules Thickness of crown No. and diameter of stays  
Inner radius of crown Working pressure by Rules  
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 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 Working pressure as per Rules  
Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, 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,  
For JOHN G. KINCARD & CO. LIMITED.  
Director. Manufacturer.

Dates { During progress of work in shops - - }  
of Survey { while building } { During erection on board vessel - - - }  
SEE MACHINERY REPORT.  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under Special Survey in accordance with the approved plans & the workmanship & material are of good quality. They have now been securely fitted on board. This Report accompanies that of the Machinery

Survey Fee £  
Charged on Mailing Receipt  
When applied for, 19  
When received, 19

W. Gordon-Mitchell  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 5 FEB 1935  
Assigned See accompanying machinery report