

## REPORT ON BOILERS.

No. 23225.

Writing Report 25<sup>th</sup> JANUARY 1946. When handed in at Local Office 28<sup>th</sup> JANUARY 1946.

Received at London Office 31 JAN 1946

Port of GREENOCK

Survey held at GREENOCK

Date First Survey 28<sup>th</sup> FEBRUARY 1944. Last Survey 3<sup>rd</sup> DECEMBER 1945.

on the

(Number of Visits 14)

Tons { Gross  
Net

By whom built

Yard No. When built

made at GREENOCK

By whom made JOHN G. KINCAID & CO L<sup>td</sup>

Engine No. 739 When made 1945

made at GREENOCK

By whom made do.

CONTRACT No. 269

Horse Power

Owners

Boiler No. 272 When made 1945

273

Port belonging to

## TITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Mark LR 1127

Mark ✓ Manufacturers of Steel Colvilles L<sup>td</sup>

f Test Heating Surface of Boilers 75639 ✓

(Letter for Record)

d Description of Boilers 3 SE cylindrical

Is forced draught fitted yes ✓

Coal or Oil fired Coal ✓

by hydraulic pressure to 380 lb

Date of test 21-4-44

2374

Working Pressure 220 lb ✓

of Firegrate in each Boiler 63.25

No. and Description of safety valves to each boiler

2375

Can each boiler be worked separately

of each set of valves per boiler

per Rule 13-41

Description of safety valves to each boiler

One 3" double opening ✓

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

as fitted 14-14

Pressure to which they are adjusted

Are they fitted with easing gear yes ✓

distance between boilers or uptakes and bunkers or woodwork

✓

Is oil fuel carried in the double bottom under boilers

distance between shell of boiler and tank top plating

✓

Is the bottom of the boiler insulated

internal dia. of boilers 14'-10 9/16"

Length 11'-6"

Shell plates: Material S

Tensile strength 29/33 tons ✓

Are the shell plates welded or flanged

No

Description of riveting: circ. seams { end DP

Diameter of rivet holes in

circ. seams 1 15/32"

long. seams 1 7/16"

Pitch of rivets

4-158

Percentage of strength of circ. end seams

plate 64.6

rivets 44.89

Percentage of strength of circ. intermediate seam

plate 85.3

rivets 85.9

Percentage of strength of longitudinal joint

plate 85.3

combined 88.7

Thickness of butt straps

outer 1 3/32"

inner 1 7/32"

No. and Description of Furnaces in each Boiler

Three Morrison corrugated ✓

Tensile strength

24/30 ✓

Smallest outside diameter 3'-9 1/2"

Thickness of plates

crown 3/4"

bottom 3/4"

Description of longitudinal joint Weld. ✓

Stiffening rings on furnace or c.c. bottom

✓

plates in steam space: Material S

Tensile strength 24/30 tons ✓

Thickness 1 1/32"

Pitch of stays 21 x 18 3/4"

Are stays secured

DN. &amp; loose washers

plates: Material { front S

back S

Tensile strength

26/30 tons ✓

Thickness

7/8"

pitch of stay tubes in nests

8-75"

Pitch across wide water spaces

1'-1 1/2"

ers to combustion chamber tops: Material S

Tensile strength 29/33 tons ✓

Depth and thickness of girder

10" x 1 1/2"

Length as per Rule 2'-9 5/8"

Distance apart 8 1/4"

No. and pitch of stays

Three @ 8"

Combustion chamber plates: Material S

Thickness: Sides 1 1/16"

Back 1 1/16"

Top 1 1/16"

Bottom 1 3/16"

of stays to ditto: Sides 8 x 8 1/4"

Back 8 x 9"

Top 8 x 8 1/4"

Are stays fitted with nuts or riveted over

yes ✓

t plate at bottom: Material S

Tensile strength 24/30 tons

Lower back plate: Material S

Tensile strength 24/30 tons

Thickness 7/8"

of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

yes ✓

stays: Material S

Tensile strength 28/32 tons

At body of stay, or Over threads

3 1/4"

No. of threads per inch 6

w stays: Material Woot Iron ✓

Tensile strength 21.5 tons

At turned off part, or Over threads

1 5/8" x 1 3/4"

No. of threads per inch 9

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Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 7/8" or Over threads

No. of threads per inch 9 ✓

Tubes: Material W.I. ✓ External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 5/16" 3/8" 7/16" ✓ No. of threads per inch 9 ✓

Pitch of tubes 3 1/16" x 3 5/8" ✓ Manhole compensation: Size of shell plate 16 1/2" x 20 1/2" ✓ Section of compensating ring 2' 8 1/2" x 3' 1" x 1 15/32" ✓ No. of rivets and diameter of rivet holes 42 @ 1 15/32"

Outer row rivet pitch at ends 10" ✓ Depth of flange if manhole flanged McNeil type ✓ 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 \_\_\_\_\_

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 from the boiler \_\_\_\_\_

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 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. KINCALD & CO. LIMITED.

*Ed Carter*  
Director

Dates of Survey { During progress of work in shops - - - (1944) FEB. 21. 28. MAR. 3. 13. 22. APR. 12. 21. 25. 26. 28. MAY 2. 4. 6. DEC. 3. ✓  
while building { During erection on board vessel - - - }  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits 14.

Is this Boiler a duplicate of a previous case Yes ✓ If so, state Vessel's name and Report No. GPK First entry of 'N' 23

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

The boilers have been constructed under special survey in accordance with the approved plans. The materials & workmanship are sound & good. The boilers are now being shipped to Vizagapatnam, India to be fitted into vessel to be built at that Port. They are eligible in my opinion to be installed in a vessel classed in the Society's Register Book. Please see machinery report for recommendations.

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

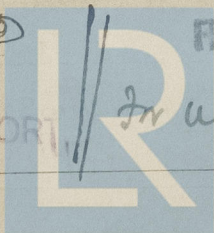
*See Machinery report*

*Charles J. Hunter*  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned

SEE ACCOMPANYING MACHINERY REPORT



FIL. 4 FEB 1949

In units see T.P. 116  
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