

REPORT ON BOILERS.

No. 22012

Received at London Office 16 JUL 1931

Date of writing Report

10

When handed in at Local Office

12.4.31

Port of

HULL

No. in
Reg. Book

Survey held at

Hull

Date, First Survey

31 March

Last Survey

July 2

1931

(Number of Visits)

23

Tons

Gross

Net

Master

Built at

Beverley

By whom built

Cook, Welton & Gemmell

No. 565

When built 1931

Engines made at

Hull

By whom made

Charles D. Holmes & Co. Ltd

Engine No. 425

When made 1931

Boilers made at

Hull

By whom made

do

Boiler No. 425

When made 1931

Nominal Horse Power

89

Owners

Kingston Steam Trawling Co. Ltd

Port belonging to

Hull

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

Manufacturers of Steel

Appleby Iron Co. Ltd

(Letter for Record)

Total Heating Surface of Boilers

1606 sq ft

Is forced draught fitted

No

Coal or Oil fired

coal

No. and Description of Boilers

One single ended return tube

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

9.6.31

No. of Certificate

3835

Can each boiler be worked separately

✓

Area of Firegrate in each Boiler

48.6 sq ft

No. and Description of safety valves to each boiler

2 spring loaded

Area of each set of valves per boiler

per Rule 9.35 sq ft

as fitted 9.8 sq ft

Pressure to which they are adjusted

200 lbs

Are they fitted with easing gear

yes

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

Smallest distance between boilers or uptakes and bunkers or woodwork

7"

Is oil fuel carried in the double bottom under boilers

✓

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

✓

Largest internal dia. of boilers

13' - 6"

Length

10' - 6"

Shell plates: Material

Steel

Tensile strength

29/33 Tons

Thickness

1 1/4"

Are the shell plates welded or flanged

✓

Description of riveting: circ. seams

end

D.R.

long. seams

T. R. D. B. S.

Diameter of rivet holes in

circ. seams 1 9/32"

long. seams 1 1/4"

Pitch of rivets

3 3/8"

Percentage of strength of circ. end seams

plate 62.0

rivets 51.0

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.7

rivets 88.3

combined 88.4

Working pressure of shell by Rules

203 lbs

Thickness of butt straps

outer 1 1/16"

inner 1 3/16"

No. and Description of Furnaces in each Boiler

Three plain

Material

Steel

Tensile strength

26/30 Tons

Smallest outside diameter

40 1/2"

Length of plain part

top 82"

bottom

Thickness of plates

crown 1 3/16"

bottom

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

210 lbs

End plates in steam space: Material

Steel

Tensile strength

26/30 Tons

Thickness

1 3/32"

Pitch of stays 18" x 17"

How are stays secured

D. N. washers

Working pressure by Rules

216 lbs

Tube plates: Material

front Steel

back

Tensile strength

26/30 Tons

Thickness

1 7/8"

Mean pitch of stay tubes in nests

10.9"

Pitch across wide water spaces

13 1/2"

Working pressure

front 220 lbs

back 217 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 Tons

Depth and thickness of girder

at centre

8 1/2" x 1 3/4"

Length as per Rule

32 3/4"

Distance apart

9"

No. and pitch of stays

in each

3 @ 8 1/4"

Working pressure by Rules

209 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26/30 Tons

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

2 1/32"

Bottom

1 1/16"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/4"

Back

9 1/4" x 8 1/4"

Top

9" x 8 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

204 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30 Tons

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

26/30 Tons

Thickness

2 7/32"

Pitch of stays at wide water space

13 1/4" x 9 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

222 lbs

Main stays: Material

Steel

Tensile strength

28/32 Tons

Diameter

At body of stay, 3"

or Over threads

No. of threads per inch

8

Area supported by each stay

306 sq in

Working pressure by Rules

219 lbs

Screw stays: Material

Steel

Tensile strength

26/30 Tons

Diameter

At turned off part, 7/8"

or Over threads

1 3/4"

No. of threads per inch

10

Area supported by each stay

80.8 sq in

002385-002400-0188

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Working pressure by Rules 222 lbs Are the stays drilled at the outer ends no Margin stays: Diameter 1 7/8"
 No. of threads per inch 10 Area supported by each stay 101 sq" Working pressure by Rules 21 lbs
 Tubes: Material Iron External diameter 3 1/2" Thickness 5/16" No. of threads per inch 9
 Pitch of tubes 4 3/4" Working pressure by Rules 215 lbs Manhole compensation: Size of opening in
 shell plate 16 x 12" Section of compensating ring 1 1/4" x 57" Dia No. of rivets and diameter of rivet holes 16 @ 1 1/4"
 Outer row rivet pitch at ends 10.3" Depth of flange if manhole flanged 3/4" Steam Dome: Material Steel
 Tensile strength 24/30 Tons Thickness of shell 3/4" Description of longitudinal joint S. R. Lap
 Diameter of rivet holes 1 1/32" Pitch of rivets 2 1/4" Percentage of strength of joint 54.0
 Internal diameter 33" Working pressure by Rules 229 lbs Thickness of crown 7/8" No. and diameter of
 stays 2 @ 2 1/4" Inner radius of crown ✓ Working pressure by Rules ✓
 How connected to shell Riveted Size of doubling plate under dome 1 1/4" x 57" Dia Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 1/4" @ 10.3"

Type of Superheater _____ Manufacturers of _____ Tubes _____
 Number of elements _____ Material of tubes _____ Steel castings _____
 Material of headers _____ Tensile strength _____ Internal diameter and thickness of tubes _____
 the boiler be worked separately _____ Thickness _____ Can the superheater be shut off and
 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 Yes

The foregoing is a correct description,
For CHARLES D. HOLMES & CO., LTD.

Dates of Survey 1931
 During progress of work in shops - - Mar. 31. Apr. 9. 14. 20. May 1. 2. 5. 10. 18. 21.
 while building During erection on board vessel - - - 28. 28. Jun. 2. 2. 8. 9. 11. 16. 22. 30
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 Total No. of visits 23

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built
under special survey and in accordance with the approved
plan, the materials and workmanship being sound and good
It has been satisfactorily fitted on board, tried
under steam and its safety valves adjusted as stated.

The boiler plan was forwarded previously with the report on the sister vessel "Siberite."

Charged on engine report

Survey Fee £

Travelling Expenses (if any) £

When applied for, ✓ 19

When received, ✓ 19

C. Croft

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 21 JUL 1931

Assigned

See J. B. P.



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