

REPORT ON BOILERS.

No. 41146

Received at London Office

27 AUG 1930

Date of writing Report

25.8.30

When handed in at Local Office

26 Aug 30

Port of

HULL

No. in Survey held at

Hull

Date, First Survey

26 May

Last Survey

20 Aug 1930

Reg. Book.

61608 on the

Steam Trawler "LADY ELSA"

(Number of Visits)

127

Gross

373.42

Tons

Net 158.21

Master

Built at

Beverley

By whom built

Lock, Nelson & Gemmell Ltd

Hull No.

551

When built

1930

Engines made at

Hull

By whom made

Charles D. Holmes & Co Ltd

Engine No.

1405

When made

1930

Boilers made at

Hull

By whom made

— do —

Boiler No.

1405

When made

1930

Nominal Horse Power

96

Owners

Jutland Amalgamated Trawlers

belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Witkowitz Bergau & Eisenhutte 9/8.

(Letter for Record

S.)

Total Heating Surface of Boilers

1698 sq

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One single ended return tube

Working Pressure

200 #/sq

Tested by hydraulic pressure to

350 #/sq

Date of test

4/7/30

No. of Certificate

3786

Can each boiler be worked separately

Area of Firegrate in each Boiler

49.2 sq

No. and Description of safety valves to each boiler

2 Spring loaded.

Area of each set of valves per boiler

{ per Rule 9.8"

{ as fitted 9.8"

Pressure to which they are adjusted

200 #/sq

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

4"

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Largest internal dia. of boilers

14' 0"

Length

10' 8"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

1 9/32"

Are the shell plates welded or flanged

long. seams

J.R. 2138

Diameter of rivet holes in

{ circ. seams

{ long. seams

1 9/32"

Pitch of rivets

3 3/4"

8 9/16"

Percentage of strength of circ. end seams

{ plate 65.8

{ rivets 51.2

Percentage of strength of circ. intermediate seam

{ plate 85.03

{ rivets 90.8

Percentage of strength of longitudinal joint

{ plate 85.03

{ rivets 90.8

{ combined 88.8

Working pressure of shell by Rules

201 #/sq

Thickness of butt straps

{ outer 1"

{ inner 1 1/8"

No. and Description of Furnaces in each Boiler

Three plain.

Material

Steel

Tensile strength

26/30 tons

Smallest outside diameter

41"

Length of plain part

{ top 46"

{ bottom 69"

Thickness of plates

{ crown 13/16"

{ bottom 13/16"

Description of longitudinal joint

Welded.

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

Working pressure of furnace by Rules

219 #/sq

End plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

1 3/16"

Pitch of stays

18"

How are stays secured

Double nuts & washers.

Working pressure by Rules

220 #/sq

Tube plates: Material

{ front Steel

{ back "

Tensile strength

26/30 tons

Thickness

1 7/8"

Mean pitch of stay tubes in nests

10.97"

Pitch across wide water spaces

13 3/4"

Working pressure

{ front 211 #/sq

{ back 230 #/sq

Girders to combustion chamber tops: Material

Steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

10 1/2" x 1 3/4"

Length as per Rule

36 3/16"

Distance apart

9"

No. and pitch of stays

in each

3 @ 8 3/4"

Working pressure by Rules

210 #/sq

Combustion chamber plates: Material

Steel

Tensile strength

26/30 tons

Thickness: Sides

3/4"

Back

2 3/32"

Top

1/4" x 2 3/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9" x 8 3/4"

Back

9" x 8 1/2"

Top

9" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

230 #/sq

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Thickness

15/16"

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

29/32"

Pitch of stays at wide water space

14" x 8 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

228 #/sq

Main stays: Material

Steel

Tensile strength

28/32 tons

Diameter

{ At body of stay, 3 1/4"

{ Over threads 3 1/4"

No. of threads per inch

8

Area supported by each stay

324 sq

Working pressure by Rules

248 #/sq

Screw stays: Material

Steel

Tensile strength

26/30 tons

Diameter

{ At turned off part, 1 1/8"

{ Over threads 1 1/8" x 1 3/4"

No. of threads per inch

10

Area supported by each stay

189 sq

Working pressure by Rules 230 # 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 10 Area supported by each stay 97.75 sq" Working pressure by Rules 218 #
Tubes: Material Iron External diameter { Plain 3 1/2" Thickness { 8 wa No. of threads per inch 9
Stay 5/16"
Pitch of tubes 4 7/8" Working pressure by Rules 215 # Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 34 x 24 x 1 9/32" No. of rivets and diameter of rivet holes 32 @ 1 1/4"
Outer row rivet pitch at ends 8 9/16 Depth of flange if manhole flanged ✓ 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 **CHARLES D. HOLMES & CO., LTD** Manufacturer.

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

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
and the materials and workmanship are sound & good.
It has been satisfactorily fitted on board, tried under steam
and its safety valves adjusted under steam as above.

Charged on engine report
sent herewith.

Survey Fee ... £ : ✓ : When applied for, ✓ 192
Travelling Expenses (if any) £ ✓ : : When received, ✓ 192

B. Knoffatt
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 29 AUG 1930

Assigned

See F.E. Rpt.



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Foundation