

REPORT ON BOILERS.

No. 50403.

DEC 12 1939

Received at London Office

Date of writing Report

10

When handed in at Local Office

11 DEC 1939

Port of

HULL

No. in Survey held at
Reg. Book.

Hull.

Date, First Survey

23. 5. 39.

Last Survey

18. 11. 1939.

on the

Steam Trawler.

LADY MADELEINE

(Number of Visits

32.)

Gross

581

Tons

Net

214.

Master

Built at

Beverley.

By whom built

Cork, Welton & Gemmell Ltd.

Yard No.

651

When built

1939-11

Engines made at

Hull.

By whom made

C. D. Holmes & Co., Ltd.

Engine No.

1553

When made

1939-11

Boilers made at

Hull.

By whom made

Hull.

Boiler No.

Hull.

When made

Hull.

Nominal Horse Power

170.

Owners

Jutland Amalgamated Trawlers, Ltd.

Port belonging to

Hull.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland, Ltd.

(Letter for Record

"S")

Total Heating Surface of Boilers

2551 sq

Is forced draught fitted

Yes.

Coal or Oil fired

Coal.

No. and Description of Boilers

one S.B.

Working Pressure

225 lbs.

Tested by hydraulic pressure to

390 lbs.

Date of test

29. 9. 39.

No. of Certificate

4015.

Can each boiler be worked separately

Area of Firegrate in each Boiler

64 sq

No. and Description of safety valves to each boiler

One twin valve spring loaded.

Area of each set of valves per boiler

per Rule

16.1 sq

as fitted

19.29 sq

Pressure to which they are adjusted

225 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

12"

Is oil fuel carried in the double bottom under boilers

No.

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

No.

Largest internal dia. of boilers

15' - 9 1/16"

Length

11' 0"

Shell plates: Material

Steel

Tensile strength

31-35 tons.

Thickness

1 5/32"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

inter

Double riveted lap.

long. seams

Triple riveted D.B.

Diameter of rivet holes in

circ. seams

1 5/32"

long. seams

1 1/2"

Pitch of rivets

9 7/16"

Percentage of strength of circ. end seams

plate

rivets

62.1

Percentage of strength of circ. intermediate seam

plate

rivets

226.3 lbs.

Percentage of strength of longitudinal joint

plate

rivets

84.3

Working pressure of shell by Rules

226.3 lbs.

Thickness of butt straps

outer

inner

1 5/32"

No. and Description of Furnaces in each Boiler

3. c.f.

Deighton type.

Material

Steel

Tensile strength

26-30 tons.

Smallest outside diameter

8' 10"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

2 3/32"

Description of longitudinal joint

Welded.

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

Working pressure of furnace by Rules

229.5 lbs.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons.

Thickness

1 1/4"

Pitch of stays

19 1/4" + 18 7/8"

How are stays secured

Nuts & washers.

Working pressure by Rules

236 lbs.

Tube plates: Material

front

back

Steel

Tensile strength

26-30 tons.

Thickness

3 1/32"

2 7/32"

Mean pitch of stay tubes in nests

10-94"

Pitch across wide water spaces

14 1/4"

Working pressure

front

back

236 lbs.

249 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons.

Depth and thickness of girder

at centre

9" x 7 1/8" x 2"

Length as per Rule

32 1/4"

Distance apart

9 1/4"

No. and pitch of stays

in each

3 @ 7 1/2"

Working pressure by Rules

236 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons.

Thickness: Sides

2 3/32"

Back

2 3/32"

Top

1 1/16"

Bottom

1 5/16"

Pitch of stays to ditto: Sides

9 3/4" x 8"

Back

8 3/8" x 9 3/16"

Top

9 1/4" x 7 1/2"

Are stays fitted with nuts or riveted over

Nuts.

Working pressure by Rules

235 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons.

Thickness

3 1/32"

Lower back plate: Material

Steel

Tensile strength

26-30 tons.

Thickness

2 9/32"

Pitch of stays at wide water space

14 1/2"

Are stays fitted with nuts or riveted over

Nuts.

Working Pressure

225 lbs.

Main stays: Material

Steel

Tensile strength

28-32 tons.

Diameter

At body of stay,
or
Over threads

3 3/8"

No. of threads per inch

8

Area supported by each stay

368 sq

Working pressure by Rules

237 lbs.

Screw stays: Material

Steel

Tensile strength

26-30 tons.

Diameter

At turned off part,
or
Over threads

1 3/4"

1 7/8"

2"

2 1/8"

No. of threads per inch

10

Area supported by each stay

77 sq

Lloyd's Register
Foundation

003742-003749-0254

LADY MADELINE

Working pressure by Rules 235-7 lbs. Are the stays drilled at the outer ends Yes. Margin stays: Diameter { At turned off part, or Over threads. 1 7/8" 2" 2 1/8"

No. of threads per inch 10 Area supported by each stay 138 Working pressure by Rules 229 lbs / sq"

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

Pitch of tubes 4 3/4" x 4 3/4" Working pressure by Rules 260 PLAIN, 220 STAY. Manhole compensation: Size of opening in shell plate 16" x 12" 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 1/4" Steam Dome: Material Steel.

Tensile strength 26-30 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 { Plate 54% Rivets 43.8%

Internal diameter 2'-9" Working pressure by Rules 230 lbs. Thickness of crown 5/16" No. and diameter of stays 2 @ 2 3/8" Inner radius of crown flat Working pressure by Rules 225 lbs / sq"

How connected to shell Double riveted. Size of doubling plate under dome 4-11 1/4" x 1 1/32" Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 1 1/2" dia - 10 3/4"

Type of Superheater Smoke tube type Manufacturers of { Tubes Steel forgings Steel castings

Number of elements 60 Material of tubes Steel Internal diameter and thickness of tubes 1 7/8" bore. 3/16" thick

Material of headers Steel Tensile strength ✓ Thickness 5/16" Can the superheater be shut off and the boiler be worked separately Yes. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes.

Area of each safety valve 1.77 sq" Are the safety valves fitted with easing gear Yes. Working pressure as per Rules 225 lbs / sq" Hydraulic test pressure: tubes 1000 lbs. forgings and castings 675 lbs. and after assembly in place 675 lbs. Are drain cocks or valves fitted to free the superheater from water where necessary Yes.

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. LILMES & CO. LTD. Manufacturer.

Dates of Survey { During progress of work in shops - - - 1937 MAY 23, JUN 20, JUL 20, 28, AUG 15, 24, 24, 25, SEP 5, 5, 7, 11, 12, 13, 14, 20, 21, 26, 27, 29, OCT 3, 3, 5, 14, NOV 3, 6, 10, 13, 14, 18. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes.

while building { During erection on board vessel - - - Total No. of visits 32.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. J/T. LADY. LILIAN.

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

This boiler has been built under special survey in accordance with the Rules & the approved plans. The workmanship & materials are good & when subjected to the hydrostatic test presented in the Rules, was found satisfactory in every respect.

Survey Fee ... £ : : When applied for, 10

Travelling Expenses (if any) £ : : When received, 10

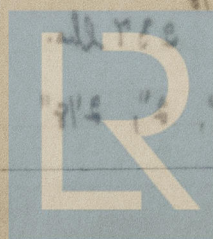
D. H. Lilmes
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

WED 20 DEC 1937

See Int J.E. 50403



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