

REPORT ON BOILERS.

No. 53623.

Received at London Office 2 AUG 1946

Date of writing Report

19

When handed in at Local Office

AUG 1946

19

Port of

HULL.

No. in Survey held at
Reg. Book.

HULL.

Date, First Survey

19. 11. 45.

Last Survey

18. 7.

19 46

(Number of Visits 38)

Gross 536

Tons Net 192

67308 on the Steam Trawler ST. MATTHEW.

Built at Beverley By whom built Cook, Welton & Gemmell Ltd.

Yard No. 764

When built 1946

Engines made at Hull

By whom made C.D. Holmes & Co. Ltd.

Engine No. 1726

When made 1946

Boilers made at Hull

By whom made C.D. Holmes & Co. Ltd.

Boiler No. 1726

When made 1946

Nominal Horse Power 206

Owners St. Andrews Steam Fishing Co. Ltd.

Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, ~~COR~~ DONKEY

Manufacturers of Steel Steel Co. of Scotland

(Letter for Record S)

Total Heating Surface of Boilers 2480 + 1100 = 3,580 ft²

Is forced draught fitted Yes

Coal or Oil fired Oil

No. and Description of Boilers One S.E. cylindrical multitubular

Working Pressure 220lbs

Tested by hydraulic pressure to 380lbs Date of test 28.5.46. No. of Certificate 4269

Can each boiler be worked separately -

Area of Firegrate in each Boiler -

No. and Description of safety valves to each boiler 3 1/2" D.S. Ordinary type.

Area of each set of valves per boiler {per Rule 19.0sq.in. 13.2 (ex 5/8)
as fitted 19.3sq.in.

Pressure to which they are adjusted 225lbs 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 6 ft. approx.

Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating None

Is the bottom of the boiler insulated No

Largest internal dia. of boilers 15'6"

Length 11'0" (outside)

Shell plates: Material Steel

Tensile strength 31-35 tons/in²

Thickness 1.13/32"

Are the shell plates welded or flanged No

Description of riveting: circ. seams {end D.R. Lap
inter. -

long. seams TR DBS

Diameter of rivet holes in {circ. seams 1.13/32"
long. seams 1.7/16"Pitch of rivets {3 3/4"
9 3/8"Percentage of strength of circ. end seams {plate 62.5
rivets 57Percentage of strength of circ. intermediate seam {plate -
rivets -Percentage of strength of longitudinal joint {plate 84.6
rivets 85.7
combined 86.5Thickness of butt straps {outer 1.3/32"
inner 1.7/32"

No. and Description of Furnaces in each Boiler 3- corrugated, Deighton type.

Material Steel

Tensile strength 26-30 tons/sq.in.

Smallest outside diameter 3'9 1/2"

Length of plain part {top -
bottom -Thickness of plates {crown 1 1/16"
bottom -

Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom None

End plates in steam space: Material Steel

Tensile strength 26-30 tons/in²

Thickness 1.7/32"

Pitch of stays 18 3/4" x 19"

How are stays secured Double nuts and washers.

Tube plates: Material {front Steel
back SteelTensile strength {26-30 tons/sq.in.
-do-Thickness {15/16"
29/32"

Mean pitch of stay tubes in nests 9 1/2" x 9 3/4"

Pitch across wide water spaces 14 1/2"

Girders to combustion chamber tops: Material Steel

Tensile strength 29-33 tons/in²

Depth and thickness of girder

at centre 9 1/2" two 7/8"

Length as per Rule 2'9 3/4"

Distance apart 9 1/2" x 8"

No. and pitch of stays

in each 3 - 7 1/2"

Combustion chamber plates: Material Steel

Tensile strength 26-30 tons/in²

Thickness: Sides 23/32"

Back 23/32"

Top 23/32"

Bottom 7/8"

Pitch of stays to ditto: Sides 9 1/2" x 8 1/4"

Back 9 1/2" x 8 1/4"

Top 9 1/2" x 7 3/4"

Are stays fitted with nuts or riveted over Nuts

Front plate at bottom: Material Steel

Tensile strength 26-30 tons/sq.in.

Thickness 15/16"

Lower back plate: Material Steel

Tensile strength 26-30 tons/sq.in.

Thickness 29/32"

Pitch of stays at wide water space 14 1/2" x 8 1/4"

Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel

Tensile strength 28-32 tons/sq.in.

Diameter {At body of stay, 3 1/4"
or Over threads

No. of threads per inch 8

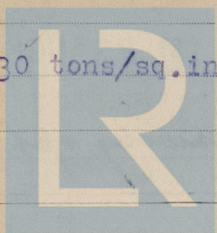
Screw stays: Material Steel

Tensile strength 26 - 30 tons/sq.in.

Diameter {At turned off part, -
or Over threads 1 3/4"

No. of threads per inch 10

014887 - 014898 - 0306



© 2021

Lloyd's Register
Foundation

Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, 1 7/8", 2", 2 1/8"
or Over threads 1 7/8", 2", 2 1/8"

No. of threads per inch 10 ✓

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

Pitch of tubes 4 7/8" x 4 3/4" ✓ Manhole compensation: Size of opening in
shell plate 16" x 12" ✓ Section of compensating ring 4'-11 1/4"D x 1.13/32"TK ✓ No. of rivets and diameter of rivet holes 118-1.7/16" ✓

Outer row rivet pitch at ends 4'6 1/2"PCD Depth of flange if manhole flanged 3 1/4" ✓ Steam Dome: Material Steel ✓ 2

Tensile strength 26-30 tons/in² 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" ✓ Thickness of crown 7/8" ✓ No. and diameter of
stays Two 2 3/8" ✓ Inner radius of crown Flat ✓

How connected to shell D.R. ✓ Size of doubling plate under dome 4'11 1/4"D x 1.13/32"TK ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell 1.7/16" 3'-9 1/2"PCD ✓

Type of Superheater ME & LE - SCO RB Manufacturers of { Tubes See
Steel forgings Manchester
Steel castings Report.

Number of elements 48 ✓ Material of tubes Steel Internal diameter and thickness of tubes

Material of headers Forged steel Tensile strength Thickness 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 in² ✓ Are the safety valves fitted with easing gear Yes ✓

Pressure to which the safety valves are adjusted 225 lbs ✓ Hydraulic test pressure:
tubes 660 lbs ✓ forgings and castings 660 lbs ✓ and after assembly in place 600 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. HOLMES & CO., LTD.

W.R. Evans Manufacturer.

Manager

Dates of Survey { During progress of work in shops - - 1945 Nov. 19. Dec. 6. 18. 20. 28. 1945 Jan 10. 15. 23. Feb. 7. Mar 20. 21.
while building { During erection on board vessel - - - see Machinery Report Apr. 4, 11, 26, May. 2, 6, 10, 21, 28, 29, ✓

Are the approved plans of boiler and superheater forwarded herewith 26.6.45.
(If not state date of approval.)

Total No. of visits 35 ✓

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

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

This boiler has been constructed and installed under Special Survey in accordance with the Secretary's letters, the approved plans and the Rules.

The workmanship and materials are good.

Boiler has been tested by 380 lbs hydraulic pressure, examined under steam, safety valves adjusted as overleaf, accunulation test held and found satisfactory on completion of all tests

Survey Fee £ : :
Travelling Expenses (if any) £ : :
see Machinery Report.

When applied for, 19
When received, 19

W.S. Shields

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 23 AUG 1946

Assigned See F.E. machy. rpt.



© 2021

Lloyd's Register
Foundation