

REPORT ON BOILERS.

No. 17524

23 DEC 1935

Received at London Office

Date of writing Report 19-12-1935 When handed in at Local Office 20-12-1935 Port of West Hartlepool

No. in Survey held at
Reg. Book. Supp

West Hartlepool

Date, First Survey 30-6-32 Last Survey 12-12-1935

17268 on the

S.S. "BOLTON HALL"

(Number of Visits 108.)
Tons { Gross 4824
Net 2860

Master

Built at West Hartlepool

By whom built Wm Gray & Co. Ltd.

Yard No. 1056 When built 1935

Engines made at

West Hartlepool

By whom made

Central Marine Engine Works

Engine No. 1056 When made 1935

Boilers made at

West Hartlepool

By whom made

Central Marine Engine Works

Boiler No. 1056 When made 1935

Nominal Horse Power

467

Owners

Wiltonhall Steamship Co. Ltd.

Port belonging to

West Hartlepool

MULTITUBULAR BOILERS ^{Large} MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel

Polvilles Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

2639 sq. ft.

Is forced draught fitted

yes.

Coal or Oil fired

coal

No. and Description of Boilers

One single ended.

Working Pressure 260 lbs.

Tested by hydraulic pressure to

440 lbs.

Date of test

21-10-32

No. of Certificate

3798

Can each boiler be worked separately

yes.

Area of Firegrate in each Boiler

52 sq. ft.

No. and Description of safety valves to each boiler

2. Rockburn's improved light lift.

Area of each set of valves per boiler

{ per Rule 6.02 sq. ins.
as fitted 7.96 sq. ins.

Pressure to which they are adjusted

240 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

centre boiler.

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

yes.

Largest internal dia. of boilers

15' 2 3/4"

Length

11' 6"

Shell plates: Material

steel

Tensile strength

31-35 tons

Thickness

1 5/8"

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end

D.R. Lap.

long. seams

Y.R. D.B.S.

Diameter of rivet holes in

{ circ. seams 1 1/16"

{ long. seams 1 1/16"

Pitch of rivets

{ 4 3/4"

{ 11 1/4"

Percentage of strength of circ. end seams

{ plate 64.5
rivets 43.1

Percentage of strength of circ. intermediate seam

{ plate 85.0
rivets 85.2

Percentage of strength of longitudinal joint

{ plate 85.0
rivets 85.2
combined 87.

Working pressure of shell by Rules

262 lbs.

Thickness of butt straps

{ outer 1 1/4"
inner 1 3/8"

No. and Description of Furnaces in each Boiler

3. Deightons.

Material

Steel.

Tensile strength

26-30 tons

Smallest outside diameter

44 5/8"

Length of plain part

{ top
bottom

Thickness of plates

{ crown 13/16"
bottom

Description of longitudinal joint

welded.

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

✓

Working pressure of furnace by Rules

268 lbs.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/4"

Pitch of stays

16 1/4" x 18 1/16"

How are stays secured

double nuts & washers.

Working pressure by Rules

274 lbs.

Tube plates: Material

{ front Steel.
back

Tensile strength

26/30 tons

Thickness

{ 1 1/32"

{ 29/32"

Mean pitch of stay tubes in nests

12 3/4" x 8 1/4"

Pitch across wide water spaces

14"

Working pressure

{ front 278 lbs.
back 270 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

9 1/4" x 13 1/4"

Length as per Rule

33 3/8"

Distance apart

8"

No. and pitch of stays

in each

3. 8 1/2"

Working pressure by Rules

267 lbs.

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

23/32"

Back

23/32"

Top

23/32"

Bottom

15/16"

Pitch of stays to ditto: Sides

8" x 8 3/8"

Back

8 3/8" x 8 1/4"

Top

8" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts.

Working pressure by Rules

262 lbs.

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Thickness

1 1/32"

Lower back plate: Material

steel

Tensile strength

26-30 tons

Thickness

15/16"

Pitch of stays at wide water space

14 1/2" x 7 11/16"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

268 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

6

Area supported by each stay

19 1/4" x 16 1/4"

Working pressure by Rules

280 lbs.

Screw stays: Material

steel

Tensile strength

26-30 tons

Diameter { At turned off part,
or
Over threads

1 3/4"

No. of threads per inch

9

Area supported by each stay

8 1/4" x 8 3/8"

Working pressure by Rules 262 1/2. Are the stays drilled at the outer ends No. Margin stays: Diameter { At turned off part, 2 Over threads 2.
No. of threads per inch 9. Area supported by each stay 11 1/8 x 8 3/8. Working pressure by Rules 265 1/2.
Tubes: Material Steel External diameter { Plain 3 Stay 3. Thickness { 7 5/16 9 3/8. No. of threads per inch 9.
Pitch of tubes 4 1/8 x 4 1/4. Working pressure by Rules 300 1/2. Manhole compensation: Size of opening in
shell plate 20 x 16. Section of compensating ring 22 x 1 5/8. No. of rivets and diameter of rivet holes 28 x 1 1/16.
Outer row rivet pitch at ends 11 1/4. Depth of flange if manhole flanged ✓. Steam Dome: Material None.
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 Smoke tube. Manufacturers of Tubes The Superheater Co Ltd.
Number of elements 58. Material of tubes Solid drawn steel. forgings 16 mm 3 mm.
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 sq ins, improved high lift. Are the safety valves fitted with easing gear yes. Working pressure as per
Rules 260 lbs. Pressure to which the safety valves are adjusted 275 lbs. Hydraulic test pressure No.
tubes 1000 lbs. forging 780 lbs and after assembly in place 520 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 CENTRAL MARINE ENGINE WORKS
(L. Gray & Co. Ltd.)

The foregoing is a correct description,

John H. Seamey - DIRECTOR, Manufacturer

Dates { During progress of work in shops - - }
of Survey { while building { During erection on board vessel - - }

Are the approved plans of boiler and superheater forwarded herewith No.
(If not state date of approval.) 18-5-32. 12-7-32.
Total No. of visits

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. SS "Siltonhall" Mpl report No 1720.

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

See accompanying machinery report.

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

J. Brooke Smith

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 31 DEC 1935

Assigned See minute on J.E. Rpt



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