

REPORT ON BOILERS.

No. 17157

Received at London Office

8 JUN 1932

Date of writing Report 31st May 1932 When handed in at Local Office

6.6.1932

Port of West Hartlepool

Survey held at

West Hartlepool

Date, First Survey

11th January

Last Survey

20th May 1932

(Number of Visits

65)

Tons

Gross 172.53

Net 60.41

on the Screw Pilot Cutter "B.O. DAYIES".

Built at West Hartlepool By whom built Wm Gray & Co. Ltd Yard No. 1058 When built 1932

Engines made at West Hartlepool By whom made Central Marine Engine Engine No. 1058 When made 1932

Boilers made at ditto By whom made Works Boiler No. 1058 When made 1932

Horse Power Owners Tees Pilot Cutters Co. Ltd. Port belonging to Middlesbrough

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Corvill's Ltd. (Letter for Record S)

Total Heating Surface of Boilers 1226 sq. ft. Is forced draught fitted no Coal or Oil fired coal

and Description of Boilers One, single ended. Working Pressure 184 lbs.

Tested by hydraulic pressure to 326 lbs. Date of test 15.4.32 No. of Certificate 3794 Can each boiler be worked separately yes.

Area of Firegrate in each Boiler 36 sq. ft. No. and Description of safety valves to each boiler 2 Cockburn's improved high lift.

Area of each set of valves per boiler { per Rule 3.6 sq. ft. as fitted 4.8 sq. ft. Pressure to which they are adjusted 189 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 9". 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

Largest internal dia. of boilers 11'-6" Length 10'-6" Shell plates: Material Steel. Tensile strength 29/33.

Thickness 15"/16" Are the shell plates welded or flanged no Description of riveting: circ. seams end 9 Riv. lap

g. seams Treb. riv. S.B.S. Diameter of rivet holes in { circ. seams 1 3/16" long. seams 1" Pitch of rivets { 3 5/8" 7 3/32"

Percentage of strength of circ. end seams { plate 69 rivets 48.5. Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate 86.147 rivets 86.2 Working pressure of shell by Rules 184 lbs.

Thickness of butt straps { outer 23/32 inner 27/32 No. and Description of Furnaces in each Boiler 2 plain.

Material Steel Tensile strength 26/30 Smallest outside diameter 3'-9"

Length of plain part { top 77 1/2" bottom 71 1/2" Thickness of plates { crown 13/16 bottom 7/16 Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.e. bottom Working pressure of furnace by Rules 191 lbs.

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 1/32" Pitch of stays 18 1/4" x 14"

How are stays secured Double nuts Working pressure by Rules 185 lbs.

The plates: Material { front Steel back steel Tensile strength { 26/30 Thickness { 15/16 13/16

Can pitch of stay tubes in nests 13 1/2" x 8 3/4" Pitch across wide water spaces 14 1/4" x 8 3/4" Working pressure { front 216 lbs back 191 lbs

Orders to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder

centre 7 3/4" x 1 1/2" Length as per Rule 29 7/16" Distance apart 9 3/4" No. and pitch of stays

each two 10" Working pressure by Rules 191 lbs. Combustion chamber plates: Material Steel

Tensile strength 26/30 Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 23/32

Pitch of stays to ditto: Sides 9 5/8" x 10 3/8" Back 9 5/8" x 9 3/4" Top 9 3/4" x 10 Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 185 lbs. Front plate at bottom: Material Steel Tensile strength 26/30

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26/30 Thickness 27/32

Pitch of stays at wide water space 14 1/4" x 9 3/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 195 lbs. Main stays: Material Steel Tensile strength 28/32

Diameter { At body of stay, 2 5/8" No. of threads per inch 6 Area supported by each stay 14" x 18 1/16"

Working pressure by Rules 190 lbs. Screw stays: Material Steel Tensile strength 26/30

Diameter { At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 10 5/8" x 9 3/8"

Shipping. Working Pressure 195 lbs. Main stays: Material Steel Tensile strength 28/32

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Working pressure by Rules 190 lbs. Screw stays: Material Steel Tensile strength 26/30

Diameter { At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 10 5/8" x 9 3/8"

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Working pressure by Rules 186 lb 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 9 3/4" x 11 15/16" Working pressure by Rules 212 lb
 Tubes: Material Weldless Steel External diameter { Plain 3 1/4" / Stay 3 1/4" Thickness { 8 W.G. / 3/16" x 1/4" No. of threads per inch 9 /
 Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 197 lb Manhole compensation: Size of opening in
 shell plate 16" x 20" / Section of compensating ring 20 1/2" x 15" / No. of rivets and diameter of rivet holes 36 1 1/8" /
 Outer row rivet pitch at ends 8 3/8" / Depth of flange if manhole flanged ✓ Steam Dome: Material Steel
 Tensile strength 26/30 / Thickness of shell 1/2" / Description of longitudinal joint D. R. Lap.
 Diameter of rivet holes 7/8" / Pitch of rivets 2 3/8" / Percentage of strength of joint { Plate 69.6 / Rivets 73.8 /
 Internal diameter 2'-9" / Working pressure by Rules 265 lb / Thickness of crown 2 1/32" / No. and diameter of
 stays ✓ / Inner radius of crown 2'-9" / Working pressure by Rules 189 lb /
 How connected to shell Flanged & double riveted / Size of doubling plate under dome 9" wide under flange x 15" / Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1" dia 7 1/4" pitch /

Type of Superheater None 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 Yes

FOR THE CENTRAL MARINE ENGINE WORKS.
 The foregoing is a correct description,
W. S. H. Manufacturer.

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

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

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

R. D. Shilston

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 14 JUN 1932

Assigned See J. E. Rpt.



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Rpt. 13.

REF

Date of writing

No. in Survey Reg. Book.

on the

Built at

Owners

Electric Light

Is the Vessel for

System of Dis

Pressure of sup

Direct or Alte

If alternating c

Has the Autom

Generators, d

are they over co

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Are all terminal

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Switchboard

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Instrumen

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Switches,

Joint Box