

REPORT ON BOILERS.

No. 89297

20 OCT 1932

Received at London Office

Date of writing Report 19 When handed in at Local Office 18/10/1932 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Walsend-on-Tyne Date, First Survey 19 Sep. Last Survey 14 Oct 1932

g. Book. S/S. Castleman (Number of Visits 10.) Tons { Gross
Net

on the S/S. Castleman

Master Sunderland Built at Sunderland By whom built W Doxford & Sons Yard No. ✓ When built 1900

Engines made at Sunderland By whom made W Doxford & Sons Ltd Engine No. ✓ When made do

Boilers made at do By whom made do Boiler No. ✓ When made do

Nominal Horse Power 547 1/2 Owners Moore Line Ltd Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Port of London main Boilers fitted with superheaters. (Letter for Record ✓)

Total Heating Surface of Boilers 2000 Is forced draught fitted ✓ Coal or Oil fired ✓

No. and Description of Boilers 2000 Working Pressure 150

Tested by hydraulic pressure to 200 Date of test 1932 No. of Certificate 100 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 200 No. and Description of safety valves to each boiler 1

Area of each set of valves per boiler { per Rule 1 as fitted 1 Pressure to which they are adjusted 150 Are they fitted with easing gear ✓

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 1 Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and tank top plating 1 Is the bottom of the boiler insulated ✓

Largest internal dia. of boilers 1 Length 1 Shell plates: Material 1 Tensile strength 1

Thickness 1 Are the shell plates welded or flanged ✓ Description of riveting: circ. seams { end 1 inter. 1

long. seams 1 Diameter of rivet holes in { circ. seams 1 long. seams 1 Pitch of rivets { 1

Percentage of strength of circ. end seams { plate 1 rivets 1 Percentage of strength of circ. intermediate seam { plate 1 rivets 1

Percentage of strength of longitudinal joint { plate 1 rivets 1 combined 1 Working pressure of shell by Rules 1

Thickness of butt straps { outer 1 inner 1 No. and Description of Furnaces in each Boiler 1

Material 1 Tensile strength 1 Smallest outside diameter 1

Length of plain part { top 1 bottom 1 Thickness of plates { crown 1 bottom 1 Description of longitudinal joint 1

Dimensions of stiffening rings on furnace or c.c. bottom 1 Working pressure of furnace by Rules 1

End plates in steam space: Material 1 Tensile strength 1 Thickness 1 Pitch of stays 1

How are stays secured 1 Working pressure by Rules 1

Tube plates: Material { front 1 back 1 Tensile strength { 1 Thickness { 1

Mean pitch of stay tubes in nests 1 Pitch across wide water spaces 1 Working pressure { front 1 back 1

Girders to combustion chamber tops: Material 1 Tensile strength 1 Depth and thickness of girder 1

at centre 1 Length as per Rule 1 Distance apart 1 No. and pitch of stays 1

in each 1 Working pressure by Rules 1 Combustion chamber plates: Material 1

Tensile strength 1 Thickness: Sides 1 Back 1 Top 1 Bottom 1

Pitch of stays to ditto: Sides 1 Back 1 Top 1 Are stays fitted with nuts or riveted over ✓

Working pressure by Rules 1 Front plate at bottom: Material 1 Tensile strength 1

Thickness 1 Lower back plate: Material 1 Tensile strength 1 Thickness 1

Pitch of stays at wide water space 1 Are stays fitted with nuts or riveted over ✓

Working Pressure 1 Main stays: Material 1 Tensile strength 1

Diameter { At body of stay 1 or 1 No. of threads per inch 1 Area supported by each stay 1

Working pressure by Rules 1 Screw stays: Material 1 Tensile strength 1

Diameter { At turned off part 1 or 1 No. of threads per inch 1 Area supported by each stay 1

Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter { At turned off part, or Over threads _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____

Tubes: Material _____ External diameter { Plain _____ Stay _____ Thickness { _____ No. of threads per inch _____

Pitch of tubes _____ Working pressure by Rules _____ Manhole compensation: Size of opening in shell plate _____ Section of compensating ring _____ No. of rivets and diameter of rivet holes _____

Outer row rivet pitch at ends _____ 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 *North Eastern Locomotive* Manufacturers of *Stewart & Lloyds Ltd* Tubes *Stewart & Lloyds Ltd* Steel castings *Stewart & Lloyds Ltd*

Number of elements *144* Material of tubes *Solid drawn steel* Internal diameter and thickness of tubes _____

Material of headers *Woot steel* Tensile strength *26 to 30 tons* Thickness *1 1/2"* Can the superheater be shut off and the boiler be worked separately *No*

Area of each safety valve *3.1416"* Are the safety valves fitted with easing gear *Yes* Working pressure as per Rules *180 lbs* Pressure to which the safety valves are adjusted *185 lbs* Hydraulic test pressure: tubes *1500 lbs* + *frangup* castings *540 lbs* and after assembly in place *450 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 _____ ✓

The foregoing is a correct description, _____

Manufacturer. _____

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

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

Total No. of visits _____

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

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

Superheaters fitted to the two wing boilers. Materials & workmanship good. Hydraulic tests satisfactory. Safety valves adjusted under steam as above.

Survey Fee ... £ 10 : - : -

When applied for, 19

Travelling Expenses (if any) £ : ✓ :

When received, 29/10/1931

19 OCT 1932

1931

William Butler

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 28 OCT 1932

Assigned



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