

REPORT ON BOILERS.

No. 22433

Received at London Office

113 JUL 1944

Date of writing Report 30th JUNE 1944. When handed in at Local Office 30th JUNE 1944. Port of Greenock

No. in Survey held at Greenock Date, First Survey 15th JULY 1943. Last Survey 30th JUNE 1944
eg. Book. (Number of Visits) Gross 7201

on the EMPIRE TALISMAN. Tons { Net 4946

built at Port Glasgow By whom built Lithgous Ltd Yard No. 997 When built 1944
Engines made at Glasgow By whom made Harland & Wolff Ltd Engine No. 8370 When made 1944
Boilers made at Glasgow By whom made Fairfield S.B. & E. Co Ltd Boiler No. 495 When made 1944
Aux at Greenock Owners Ministry of War Transport Port belonging to Greenock
Nominal Horse Power

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY, OR DONKEY.~~

Manufacturers of Steel _____ (Letter for Record)
Total Heating Surface of Boilers _____ Is forced draught fitted _____ Coal or Oil fired _____
No. and Description of Boilers _____ Working Pressure _____

Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Can each boiler be worked separately _____
Area of Firegrate in each Boiler _____ No. and Description of safety valves to each boiler _____
Area of each set of valves per boiler { per Rule _____ as fitted _____ Pressure to which they are adjusted 220 lbs 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 2'-6" Is oil fuel carried in the double bottom under boilers No.
Smallest distance between shell of boiler and tank top plating 2'-3" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers _____ Length _____ Shell plates: Material _____ Tensile strength _____
Thickness _____ Are the shell plates welded or flanged _____ Description of riveting: circ. seams { end _____ inter. _____
long. seams _____ Diameter of rivet holes in { circ. seams _____ long. seams _____ Pitch of rivets { _____
Percentage of strength of circ. end seams { plate _____ rivets _____ Percentage of strength of circ. intermediate seam { plate _____ rivets _____
Percentage of strength of longitudinal joint { plate _____ rivets _____ combined _____

Thickness of butt straps { outer _____ inner _____ No. and Description of Furnaces in each Boiler _____
Material _____ Tensile strength _____ Smallest outside diameter _____
Length of plain part { top _____ bottom _____ Thickness of plates { crown _____ bottom _____ Description of longitudinal joint _____
Dimensions of stiffening rings on furnace or c.c. bottom _____

End plates in steam space: Material _____ Tensile strength _____ Thickness _____ Pitch of stays _____
How are stays secured _____
Tube plates: Material { front _____ back _____ Tensile strength { _____ Thickness { _____
Mean pitch of stay tubes in nests _____ Pitch across wide water spaces _____

Girders to combustion chamber tops: Material _____ Tensile strength _____ Depth and thickness of girder _____
at centre _____ Length as per Rule _____ Distance apart _____ No. and pitch of stays _____
in each _____

Combustion chamber plates: Material _____
Tensile strength _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
Pitch of stays to ditto: Sides _____ Back _____ Top _____ Are stays fitted with nuts or riveted over _____

Front plate at bottom: Material _____ Tensile strength _____
Thickness _____ Lower back plate: Material _____ Tensile strength _____ Thickness _____
Pitch of stays at wide water space _____ Are stays fitted with nuts or riveted over _____

Main stays: Material _____ Tensile strength _____
Diameter { At body of stay _____ or _____ Over threads _____ No. of threads per inch _____
Screw stays: Material _____ Tensile strength _____
Diameter { At turned off part _____ or _____ Over threads _____ No. of threads per inch _____

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Are the stays drilled at the outer ends _____

Margin stays: Diameter { At turned off part, or Over threads _____

No. of threads per inch _____

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

Pitch of tubes _____ 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 _____ Thickness of crown _____ No. and diameter of Engines made _____

stays _____ Inner radius of crown _____ Boilers made _____

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 Smokestack Manufacturers of { Tubes The Weldless Steel Tube Co. Steel forgings Steel Peck & Tozer. Steel castings _____

Number of elements 120 Material of tubes S. D. steel Internal diameter and thickness of tubes 22/17 mm.

Material of headers M. S. Tensile strength 28/32 tons Thickness 3/4" 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 3.14 sq" Are the safety valves fitted with easing gear Yes

Pressure to which the safety valves are adjusted 220 lbs Hydraulic test pressure: _____

tubes 1000 lbs forgings and castings 600 lbs and after assembly in place 550 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, Rankin & Blackmore Ltd. Manufacturer. J. H. Smith Managing Director.

Dates of Survey { During progress of work in shops - - } _____ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

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

SEE MACHINERY REPORT

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.) These superheat leaders and elements have been fitted to the 2 main boilers on Glasgow Report No 66375. They have been tested after fitting in place to 550 lbs. Hydraulic.

Survey Fee £ : : _____ When applied for, _____ 19

Travelling Expenses (if any) £ : : _____ When received, _____ 19

M. Caldwell
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 11 JUL 1944

Assigned _____