

REPORT ON WATER TUBE BOILERS.

NEWCASTLE-ON-TYNE, No. 104585

No. 71169

Received at London Office 30 OCT 1946

Writing Report 19 When handed in at Local Office 26.10.1946 Port of GLASGOW.
 Survey held at RENFREW. Date, First Survey 11.10.45 Last Survey 17.10.45
 on the PATRICIAN.
 SUNDERS By whom built J.L. THOMPSON & SONS LTD Yard No. 649 When built 1947-6mo
 made at NEWCASTLE-ON-TYNE By whom made WALLSEND SLIPWAY & ENG. CO. Engine No. 998 When made 1947
 made at RENFREW By whom made BABCOCK & WILCOX, Ltd. Boiler No. 6/1846 When made 1946.
 Horse Power 417 Owners ELLERMAN LINE, Ltd. Port belonging to

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel

Colvilles Ltd.

Approval of plan 3.10.45. No. and Description or Type
 Class 2 - B. & W. Marine Type Working Pressure 450 lb. Tested by Hydraulic Pressure to 725 lbs Date of Test 19.9.46.
 Certificate 22257 Can each boiler be worked separately Yes Total Heating Surface of Boilers 5394 sq.ft. 5400
 Draught fitted Yes Area of Fire Grate (coal) in each Boiler S.H. 866 sq.ft. 812
 Type of burners (oil) in each boiler 2 - Wallsend Howden No. and description of safety valves on
 Boiler 1 - 2" H.L. Double Area of each set of valves per boiler 5.85 sq.inch. See over
 as fitted 6.28 sq.inch. + 3.14 sq.inch. Pressure to which they
 Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter
 Key boiler No. Smallest distance between boilers or uptakes and bunkers or woodwork Height of boiler 19'-10"
 and length 11'-0" x 18'-8" Steam Drums: Number in each boiler One Inside diameter 3'-6"
 Thickness of plates 1.11/16" Range of tensile strength 28/32 tons Are drum shell plates welded
 Yes If fusion welded, state name of welding firm Babcock & Wilcox, Ltd. Have all the requirements of the Rules
 Class I vessels been complied with Yes Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of
 Rivet Diameter of tube holes in drum 4" Pitch of tube holes 7 1/2"
 Range of tensile strength 26/30 tons
 Water Drums: Number
 Inside diameter Thickness of plates Range of tensile strength Are drum shell plates
 If fusion welded, state name of welding firm Have all the requirements of the Rules
 Description of riveting:—Circ. seams long. seams
 Pitch of rivets Thickness of straps
 Diameter of tube holes in drum Pitch of tube holes
 Range of tensile strength
 Size of manhole or handhole 12" x 16"
 Water Drum Heads or Ends: Range of tensile strength
 Radius or how stayed Size of manhole or handhole 725 lbs.
 Number 12 pairs Material S.D. Steel Thickness 5" nominal Tested by hydraulic pressure to 725 lbs.
 Diameter 4", 3 1/4" & 1.13/16" Thickness 2 & 4G:3G:7 & 9G Number 12 & 24, 2; 92 & 389 Muddrum
 Sections Nippled Inside diameter 6" x 6" Thickness of shell plates 3/4" Nominal Range of tensile
 28/32 tons Description of longitudinal joint solid drawn If fusion welded, state name of welding
 Have all the requirements for the Rules for Class I vessels been complied with Diameter of rivet holes
 Thickness of straps Percentage strength of long. joint plate rivet
 Range of tensile strength Thickness Radius or how stayed
 ERHEATER, Drums or Headers: Number in each boiler 1 - Inlet, 1 - Outlet Inside diameter 6" x 6"
 1 1/8" Nominal Material S.D. Steel Range of tensile strength 28/32 tons Are drum shell plates welded
 If fusion welded, state name of welding firm Have all the requirements of the Rules
 Description of riveting:—Circ. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Thickness of straps Percentage strength of
 joint:—Plate Rivet Diameter of tube holes in drum 1 1/4" Pitch of tube holes 1 1/4" Percentage strength of
 Drum Heads or Ends: Thickness Range of tensile strength 71 @ 1 1/4" 11G.
 Size of manhole or handhole 3 5/8" square Number, diameter, and thickness of tubes 36 @ 1 1/4" 10G.
 Tested by hydraulic pressure to 725 lb. Date of test 9.10.46. Is a safety valve fitted to each section of the superheater which
 be shut off from the boiler Yes No. and description of safety valves 1 - 2" H.L. Single Area of each set
 valves 3.14 sq.inch Pressure to which they are adjusted 440 lb. Is easing gear fitted Yes
 Has the spare gear required by the Rules been supplied Yes

The foregoing is a correct description,

Babcock & Wilcox, Ltd. Manufacturer.

During progress of work in shops 19.10.45 11 Nov 1.7.9.15.22 29 Dec 4.10.11.17 1946 Jan 7.25 7.28 18
 During erection on board vessel 16.27 Sep 4.11 Oct 9.15.17 Is the approved plan of boiler forwarded herewith No
 Total No. of visits 37

This boiler a duplicate of a previous case Yes If so, state vessel's name and report No. See Glasgow Report No. 71016

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. These boilers have been built under special
 survey in accordance with the Rules and approved plans and the materials and workmanship are good.
 They have been sent to Newcastle-on-Tyne for installation in the vessel.

Survey Fee ... £ 50 : : When applied for 29 OCT 1946
 Travelling Expenses (if any) £ : : When received 19

Date GLASGOW 29 OCT 1946

Committee's Minute. Signed for Completion

FRI 25 JUL 1947

See F.E. mch. rpt.

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

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