

REPORT ON WATER TUBE BOILERS.

No. 101.

22 JAN 1945

Received at London Office

22 DEC 1944

Date of writing Report 15. 12. 1944 When handed in at Local Office 20. 12. 1944 Port of Nottingham

No. in Survey held at Derby Date, First Survey 25. 10. 44 Last Survey 15. 12. 1944

Reg. Bk. on the HMS "Transport Gen. No 3042 (1867) (Number of Visits 10) Tons Gross 4457 Net 2430

Built at Glasgow By whom built Glasgow Works 1298 When built 1945

Engines made at Renfrew By whom made Lochry & Co. - 1067/8 When made 1944

Boilers made at Derby By whom made International Combustion Ltd. When made 1944

BOILER No. 340/121/6 Owners Admiralty Port belonging to -

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Colvilles & Co. Ltd.

Date of Approval of plan 24. 2. 43 & 17. 2. 43. Number and Description or Type of Boilers 1-Admiralty Type (3 Drum Small Tube) Working Pressure 225 lb/sq. in. Tested by Hydraulic Pressure to 387 lb/sq. in. Date of Test 6. 12. 44.

No. of Certificate 70. Can each boiler be worked separately - Total Heating Surface of Boilers 5,325 sq. ft.

Is forced draught fitted Yes. Area of fire grate (coal) in each Boiler -

No. and type of burners (oil) in each boiler 4, Admiralty Type. No. and description of safety valves on each boiler 1 set, 4" Marine Type. H.L. Area of each set of valve 25.1 sq. ins. Pressure to which they are adjusted -

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 - Height of boiler - Width and Length -

Steam Drums:—Number in each boiler 1 Inside diameter 50" Thickness of plates 5/8" 1 1/2" in way of tube holes.

Range of Tensile Strength 28-32 tons/sq. in. Are drum shell plates welded or flanged No. Description of riveting:—

Cir. seams Double Rivets long. seams Double Rivets Diameter of rivet holes in long. seams 29/32" Pitch of rivets 3.4516"

Lap of plate or width of butt straps 93/8" Thickness of straps 1/2" Percentage strength of long. joint:—Plate 73.8 Rivet 85.8

Diameter of tube holes in drum 1.015, 1.140, 1.515 Pitch of tube holes 1 1/2, 1 1/8, 2 1/4 Percentage strength of shell in way of tubes 32.3

Working pressure by rules Approved. Steam Drum Heads or Ends:—Range of tensile strength 26-30 tons/sq. in. Thickness of plates 15/16, 1 1/8

Radius or how stayed 50" Size of manhole or handhole 16" x 12" Working pressure by rules Approved Water Drums:—Number in each boiler 2 Inside Diameter 22 3/4 - 22 5/8 Thickness of plates 1 1/8 - 1 1/2

welded or flanged One end forged seamless Description of riveting:—Cir. seams Single Rivets long. seam - Diameter of rivet holes in

long. seams - Pitch of rivets - Lap of plates or width of butt straps - Thickness of straps 1 1/2, 1 1/8, 2 1/4

Percentage strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum 1.015, 1.140, 1.515 Pitch of tube holes 1 1/2, 1 1/8, 2 1/4

Percentage strength of drum shell in way of tubes 32.3 Working pressure by rules Approved Water Drum Heads or Ends:—Range of

Tensile strength 26-30 tons/sq. in. Thickness of plates 13/16 Radius or how stayed 23"

Size of manhole or handhole 16" x 12" Working pressure by rules Approved Headers or Sections:—Number

Material - Thickness - Tested by Hydraulic Pressure to - Tubes:—Diameter 1", 1 1/8, 1 1/2

Thickness 0.104, 0.116, 0.116 Number 1,530, 364, 186 Steam Dome or Collector:—Description of Joint to Shell -

Inside diameter - Thickness of shell plates - Range of tensile strength -

Description of longitudinal joint - Diameter of rivet holes - Pitch of rivets - Lap of plate or width of

butt straps - Thickness of straps - Percentage strength of long. joint - Plate - Rivet -

Working Pressure of shell by rules - Crown or End Plates:—Range of tensile strength -

Thickness - Radius or how stayed - Working pressure by rules -

SUPERHEATER. Drums or Headers:—Number in each boiler - Inside Diameter -

Thickness - Material - Range of tensile strength - Are drum shell plates welded

or flanged - Description of riveting:—Cir. seams - long. seams - Diameter of rivet holes in

long. seams - Pitch of rivets - Lap of plates or width of butt straps - Thickness of straps -

Percentage strength of long. joint:—Plate - Rivet - Diameter of tube holes in drum - Pitch of tube holes -

Percentage strength of drum shell in way of tubes - Working pressure by rules - Drum Heads or Ends:—

Thickness - Range of tensile strength - Radius or how stayed - Size of manhole or handhole -

Working pressure by rules - Number, diameter, and thickness of tubes - Tested by Hydraulic Pressure to -

Date of Test - Is a safety valve fitted to each section of the superheater which can be shut off from the boiler -

No. and description of Safety Valves - Area of each set of valves -

Pressure to which they are adjusted - Is easing gear fitted -

Spare Gear. Has the spare gear required by the rules been supplied to Admiralty Requirements.

The foregoing is a correct description.

INTERNATIONAL COMBUSTION LIMITED.

Thos Smeaton. Manufacturer.

Dates of Survey During progress of work in shops - 25. 10. 44 - 15. 12. 44 Is the approved plan of boiler forwarded herewith NO.

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

Is this boiler a duplicate of a previous case Yes. If so, state vessel's name and report No. J.14051 Report No. 94.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special

Survey, in accordance with the Society's Rules, the Secretary's letters and the approved plans.

The workmanship and materials are good. The boiler has been despatched to

Glasgow and is intended for installation on Messrs. Harland & Wolff Vessel No. J. 865-1867

Survey Fee ... £ 22 : 10 : When applied for, 20. 12. 1944

Travelling Expenses (if any) £ 22 : 10 : When received, 19

Committee's Minute

Assigned SEE ACCOMPANYING MACHINERY REPORT

4 DEC 1945

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register

Foundation

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