

Rpt. 5c.

REPORT ON WATER TUBE BOILERS.

No. 100.

Received at London Office

22 DEC 1944

22 JAN 1945

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 (Number of Visits 10) Tons Gross 4457 Net 2430

Reg. Bk. on the HMS Transport Jerry No 3042 (J1867)

Built at Glasgow By whom built Harland & Wolff Ltd 1298 When built 1945

Engines made at Renfrew By whom made Lubriz & Co 104/8 When made 1944

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

Boiler No. 340/121/5 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. & 14. 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 384 lb/sq. in. Date of Test 24. 11. 44.

No. of Certificate 69 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 251 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 58" Width and Length 1 1/2 in way of tube holes.

Steam Drums:—Number in each boiler 1 Inside diameter 50" Thickness of plates 5/8" No. Description of riveting:—

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 3-45/16"

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 1/4, 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 1 1/2, 1 1/4.

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 1/2 - 1 1/4 Range of tensile strength 28-32 tons/sq. in. Are drum shell plates

welded or flanged One end forged seams 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 1/4, 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 1/4, 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 1 1/2 Radius or how stayed 23.

Size of manhole or handhole 16" x 12" Working pressure by rules Approved. Headers or Sections:—Number Tubes:—Diameter 1", 1 1/8", 1 1/2"

Material Thickness Tested by Hydraulic Pressure to Steam Dome or Collector:—Description of Joint to Shell

Thickness 0.104, 0.116, 0.116 Number 1,530, 364, 186 Range of tensile strength

Inside diameter Thickness of shell plates Diameter of rivet holes Pitch of rivets Lap of plate or width of

Description of longitudinal joint Thickness of straps Percentage strength of long. joint Plate Rivet

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 Working pressure by rules

Thickness Radius or how stayed Inside Diameter

SUPERHEATER. Drums or Headers:—Number in each boiler Are drum shell plates welded

Thickness Material Range of tensile strength Diameter of rivet holes in

or flanged Description of riveting:—Cir. seams long. seams Thickness of straps

long. seams Pitch of rivets Lap of plates or width of butt straps Pitch of tube holes

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

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. Ince & Co.

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. J14051. Report No. 94.

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.) 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 the materials are good. The boiler has been despatched to

Glasgow & is intended for installation on Messrs. Harland & Wolff Ltd. Vessel No. J. 1865 (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.

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