

REPORT ON WATER TUBE BOILERS.

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
Reg. Bk. (Number of Visits 10) Tons Gross 457 Net 2430

Built at Glasgow By whom built Harland & Wolff Ltd 1298 When built 1945
Engines made at Renfrew By whom made Lubbock & Co 104/18 When made 1944
Boilers made at Derby By whom made International Combustion Ltd When made 1944
Nominal Horse Power 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 description of safety valves on each boiler 4, Admiralty Type. 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" 1/2 in way of tube holes. 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 Lap JOINT Double Rivets long. seams DOUBLE BUTT Double Rivets Diameter of rivet holes in long. seams 29/32" Pitch of rivets 3-4 5/16"

Lap of plate or width of butt straps 9 3/8" 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 1/2, 1/16, 2/4" 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, 1/16"

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 1/16 - 1 1/2" 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 LAP JOINT 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 1/2, 1/16, 2/4"

Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum 1.015, 1.140, 1.515" Pitch of tube holes 1/2, 1/16, 2/4"

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 Tubes:—Diameter 1, 1 1/8, 1 1/2"

Material Thickness Tested by Hydraulic Pressure to Description of Joint to Shell Range of tensile strength

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

Inside diameter Thickness of shell plates 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 Working pressure by rules

Thickness Radius or how stayed SUPERHEATER. Drums or Headers:—Number in each boiler Inside Diameter Are drum shell plates welded or flanged Material Range of tensile strength

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. Ince & Co. Manufacturer.

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 A/c rendered from London 23. 1. 45

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

Committee's Minute Assigned L. Jones Engineer Surveyor to Lloyd's Register of Shipping.

SEE ACCOMPANYING MACHINERY REPORT.

Lloyd's Register Foundation

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