

Rpt. No. 50.

# REPORT ON WATER TUBE BOILERS.

Std. No. 34402  
 Lin. No. 122502  
 11 APR 1945

Received at London Office

Date of Writing Report 27-3-1945 When handed in at Local Office 8 APR 1945  
 Port of Liverpool (✓ Nottingham)  
 No. in Survey held at Birkenhead & Derby Date, First Survey 23/3/44 Last Survey 27/3/1945  
 Reg. Bk. on the Birkenhead & Derby  
 (Number of Visits 38) Gross Tons Net  
 Built at By whom built When built  
 Engines made at By whom made When made  
 Boilers made at Birkenhead & Derby By whom made Cammell Laird & International Combustion Ltd 1945  
 Nominal Horse Power Owners Port belonging to

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

Date of Approval of plan 14-6-43 Standard Corvette Berlin Number and Description or Type

of Boilers 2 - Three drum type Working Pressure 225 lb Tested by Hydraulic Pressure to Date of Test

No. of Certificate 87 and 88 Can each boiler be worked separately Total Heating Surface of Boilers 10650 sq. ft.

Is forced draught fitted 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 Marine Type H. L. Area of each set of valve 25 sq. in. Pressure to which they are adjusted

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 Height of boiler 10-1 1/2 Width and Length 8-7 1/2 Centres

Steam Drums:—Number in each boiler One Inside diameter 50 Thickness of plates 5/8

Range of Tensile Strength 28/32 Ton Are drum shell plates welded or flanged no Description of riveting:—

Cir. seams D.R. long. seams D.R.-D.B.S. Diameter of rivet holes in long. seams 29/32 Pitch of rivets 3.5

Lap of plate or width of butt straps 9 3/8 Thickness of straps 1/2 Percentage strength of long. joint:—Plate 74.1 Rivet 69

Diameter of tube holes in drum 1 1/2 - 1 1/8 - 1 Pitch of tube holes 2 1/4 - 1 1/8 - 1 1/2 Percentage strength of shell in way of tubes 33

Working pressure by rules 271 lb Steam Drum Heads or Ends:—Range of tensile strength 26/30 Ton Thickness of plates 1 1/16 - 1 1/8

Radius or how stayed 4' 2" Size of manhole or handhole 16" x 12" Working pressure by rules 226 lb Water Drums:—Number

in each boiler Two Inside Diameter 22 7/8 Thickness of plates 1 1/2 Range of tensile strength 28/32 Ton Are drum shell plates

welded or flanged no - Solid drum Description of riveting:—Cir. seams one end S.R. long. seams Solid drum Diameter of rivet holes in

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

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

Percentage strength of drum shell in way of tubes 33 Working pressure by rules 592 lb Water Drum Heads or Ends:—Range of

Tensile strength 26-30 Ton Thickness of plates 13/16 Radius or how stayed 23

Size of manhole or handhole 16" x 12" Working pressure by rules 356 lb Headers or Sections:—Number 1 1/2, 1 1/8, 1

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

Thickness 1 1/16, 1 1/8, 1 1/4 Number 186, 364, 1536 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

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

Radius or how stayed

RESENERHEATER. Drums or Headers:—Number in each boiler not fitted Inside Diameter

Decks Material Range of tensile strength Are drum shell plates welded

Caulk 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

For erection and testing The foregoing is a correct description of the boiler

Have the INTERNATIONAL COMBUSTION LIMITED. For Boiler Parts J. P. Underwood Manufacturer.

General During progress of 23/3/44 to 27/3/45. Is the approved plan of boiler forwarded herewith

work in shops - - - Total No. of visits 38

St. this survey, being erection on survey, 1,387 and vessel - - -

a duplicate of a previous case Yes If so, state vessel's name and report No. Appa Corvette class.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boiler parts have been made

in Special Survey, to approved plans in accordance with the Society's Requirements.

They are despatched for Mr. J. W. Power Ltd to Mr. International Combustion Ltd at Derby for

erection. Above Boilers have been erected, tested and completed to our satisfaction and

despatched to Sunderland for installation on board vessel 14452

Survey Fee ... £45.00 When applied for, ADMIRALTY

Travelling Expenses (if any) £ ... When received, 24/4/45

Committee's Minute LIVERPOOL 10 APR 1945

Character d Transmit to London

See F.L. mchly opt.

Lloyd's Register Foundation

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