

# REPORT ON WATER TUBE BOILERS.

No. 59236

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of ROTTERDAM

No. in Survey held at Rotterdam Date, First Survey 13-9-62 Last Survey 9-6-1964

Reg. Book. (Number of Visits 34) } Gross.....  
 on the s.s. "POOLSTER" Tons } Net.....

Built at Rotterdam By whom built Rotterd. Droogdok Mij. Yard No. 307 When built 1964

Engines r/e at Rotterdam By whom made Rotterd. Droogdok Mij. Engine No. 363 When made 1964

Boilers maant Rotterdam By whom made Rotterd. Droogdok Mij. Boiler No. 721-722 When made 1964

HS for Regisr Book 17.160 sq.ft. Owners Ministerie van Defensie / Marine Port belonging to Den Helder

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

Date of Approval of plan 22-10-'62 No. and Description or Type of Boilers Two Foster Wheeler-type ESD II Working Pressure 52 kg/cm<sup>2</sup> Tested by Hydraulic Pressure to 81.5 kg/cm<sup>2</sup> Date of Test 3-3-64

No. of Certificate Rot. 1379/1380 Can each boiler be worked separately yes Total Heating Surface of Boilers 3550 sq. ft Superheaters 6420 sq. ft.

Half Economisers 7190 sq. ft. forced draught fitted yes Area of Fire Grate (coal) in each Boiler -

No. and type of burners (oil) in each boiler 4 main + 1 pilot- Werkspoor - Duiker No. and description of safety valves on each boiler One-70 mm. high lift valve Area of each set of valves per boiler (per rule approved as fitted 70 mm. dia. Pressure to which they are adjusted 52 kg/cm<sup>2</sup> Are they fitted with easing gear yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler no Smallest distance between boilers or uptakes and bunkers or woodwork 1.5 m. Height of boiler 9 m.

Width and length 6.5 mx6 m. Steam Drums:—Number in each boiler one Inside diameter 1229 mm. R. 625 mm

Thickness of plates tube plate 78 mm. Range of tensile strength 44-50 kg/mm<sup>2</sup> Are drum shell plates welded or flanged welded shell plate 38 mm. If fusion welded, state name of welding firm Rotterd. Droogdok Mij. N.V. Have all the requirements of the Rules for 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 long. joint:—Plate - Rivet - Diameter of tube holes in drum 51 mm. Pitch of tube holes 114 mm.

Percentage strength of shell in way of tubes approved Steam Drum Heads or Ends:—Range of tensile strength 41-47 kg/mm<sup>2</sup>

Thickness of plates 56 mm. Radius or how stayed 1080 mm. Size of manhole or handhole 300x400 mm. Water Drums:—Number in each boiler one Inside diameter 684 mm. Thickness of plates 48 mm. Range of tensile strength 44-50 kg/mm<sup>2</sup> Are drum shell plates welded or flanged welded If fusion welded, state name of welding firm Rotterd. Droogdok Mij. Have all the requirements of the Rules for 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 long. joint:—Plate - Rivet - Diameter of tube holes in drum 51 mm. Pitch of tube holes 114 mm.

Percentage strength of drum shell in way of tubes approved Water Drum Heads or Ends:—Range of tensile strength 41-47 kg/mm<sup>2</sup>

Thickness of plates 33 mm. Radius or how stayed 600 mm. Size of manhole or handhole 300x400 mm.

Headers or Sections:—Number 3 Material M. steel Thickness 26 mm. Tested by hydraulic pressure to 81.5 kg/mm<sup>2</sup>

Tubes:—Diameter 51 mm. Thickness 4 mm. Number 248 Steam Dome or Collector:—Description of joint to shell - Inside diameter - Thickness of shell plates - Range of tensile strength - Description of longitudinal joint - If fusion welded, state name of welding firm - Have all the requirements for the Rules for Class I vessels been complied with - Diameter of rivet holes - Pitch of rivets - Thickness of straps - Percentage strength of long. joint:—plate - rivet -

Crown or End Plates:—Range of tensile strength - Thickness - Radius or how stayed -

**SUPERHEATER, Drums or Headers:**—Number in each boiler two Inside diameter 152 mm. Thickness 25.4 mm. Material incl. M. steel St. Range of tensile strength 44-50, 4 kg/mm<sup>2</sup> Are drum shell plates welded or flanged - If fusion welded, state name of welding firm - Have all the requirements of the Rules for 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 long. joint:—Plate - Rivet - Diameter of tube holes in drum 30 mm. Pitch of tube holes 41.25 mm. Percentage strength of drum shell in way of tubes approved Drum Heads or Ends:—ends Thickness 37 mm. Range of tensile strength 44-50, 4 kg/mm<sup>2</sup> Radius or how stayed - Size of manhole or handhole 51 mm. Number, diameter, and thickness of tubes 35-38 mm. x 3, 5 mm. Tested by hydraulic pressure to 81.5 kg/cm<sup>2</sup> Date of test 3-3-64 Is a safety valve fitted to each section of the superheater which can be shut off from the boiler N.A. No. and description of safety valves One-70 mm. high lift valve Area of each set of valves 70 mm. diam. Pressure to which they are adjusted 46.4 kg/cm<sup>2</sup> Is easing gear fitted yes

Spare Gear. Has the spare gear required by the Rules been supplied yes

The foregoing is a correct description,

DE ROTTERDAMSCHE DROOGDOK MIJ. N.V.

Manufacturer.

Dates of Survey } During progress of work in shops 1962-13/9; 25/9; 27/11; 29/11; 12/12; Is the approved plan of boiler forwarded herewith

while } During erection on board vessel 1963-8/1; 14/1; 18/1; 30/1; 7/2; 13/2; 15/2; 27/2; 4/3; 5/3; 14/3; 15/3; 22/4; 23/4; 6/5; 20/5; 22/5; Total No. of visits 34

building } 29/5; 9/6; 12/6; 13/6; 14/6; 26/6;

Is this boiler a duplicate of a previous case no If so, state vessel's name and report No. -

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c. These boilers have been constructed and installed under Special Survey in accordance with the Society's Rules, Secretary's letters and the approved plans. The materials used were tested as required and the workmanship found good throughout. The safety valves have been adjusted under steam to the approved pressures, an accumulation test carried out, oil burning system and remote controls examined working and all found good. In my opinion these boilers merit the approval of the Committee to be entered in the Society's Register Book with notation 2 WTB 52 kg/cm<sup>2</sup>, Spt. 46, 4 kg/cm<sup>2</sup>.

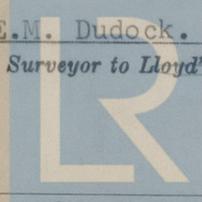
205.- Survey Fee \*Class I-Welding 2455.- When applied for 19 OCT 1964

30.- Travelling Expenses (if any) 80.- When received 19

400.- turnover tax 105.63

WEDNESDAY 23 DEC 1964

E.M. Dudock. Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

Im. 9.61 T. (Made up by printing)