

REPORT ON WATER TUBE BOILERS.

No. 1341 b.

Received at London Office

28 MAR 1931

Date of writing Report 25th March 1931 When handed in at Local Office 19 Port of Bremen

No. in Reg. Bk. 91067 Survey held at Emden Date, First Survey 15th Jan. Last Survey 19th March 1931
 on the "STEEL TWIN S.C. J.H. SENIOR" (Number of Visits 5) Tons { Gross 11900 Net 11900
 Master _____ Built at Emden By whom built Klein Stahl, Norddeutsche When built 1930
 Engines made at Kiel By whom made Fried. Krupp-germaniarwst. A.G. When made 1930
 Boilers made at Kiel By whom made Fried. Krupp-germaniarwst. A.G. When made 1930
 Registered Horse Power 1496 Owners National Amers. Petroleum Import & M.B.H. Port belonging to Stangig

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

(Letter for Record 5) Date of Approval of plan 14.5.30 Number and Description or Type of Boilers 2 Water tube Donkey Boilers Working Pressure 200 lbs Tested by Hydraulic Pressure to 400 lbs Date of Test 3.10.30
 No. of Certificate 523/524 Can each boiler be worked separately Yes Total Heating Surface of Boilers 2 x 192 m²
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler ✓ Total grate area of boilers in vessel including Main and Auxiliary _____ No. and type of burners (oil) in each boiler 2 of Todd System No. and description of safety valves on each boiler 2 spring loaded Area of each valve 2 x 5026 mm² Pressure to which they are adjusted 200 lbs
 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 5320 mm Width and Length 4300/3820 mm
 Steam Drums:—Number in each boiler 1 Inside diameter 1100 mm Material of plates S. M. Steel Thickness 15 mm
 Range of Tensile Strength 44-55 kg/cm² Are drum shell plates welded or flanged flanged Description of riveting:—
 Cir. seams lap double long. seams double butt Diameter of rivet holes in long. seams 24 mm Pitch of Rivets 82 mm
 Lap of plate or width of butt straps 230/350 mm Thickness of straps 14/15 mm Percentage strength of long. joint:—Plate 70% Rivet 112%
 Diameter of tube holes in drum 102.5/104.5 mm Pitch of tube holes 176 mm Percentage strength of shell in way of tubes 40.5%
 If Drum has a flat side state method of staying ✓ Depth and thickness of girders at centre (if fitted) _____ Distance apart ✓ Number and pitch of stays in each ✓ Working pressure by rules 14.9 kg/cm²
 Steam Drum Heads or Ends:—Material S. M. Steel Thickness 20.5/18.5 mm Radius or how stayed R = 900 mm
 Size of Manhole or Handhole 300 x 400 mm Water Drums:—Number in each boiler ✓ Inside Diameter ✓
 Material of plates ✓ Thickness ✓ 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 ✓ Water Drum Heads or Ends:—Material ✓ Thickness ✓
 Radius or how stayed ✓ Size of manhole or handhole ✓ Headers or Sections:—Number 17
 Material S. M. Steel Thickness 14 mm Tested by Hydraulic Pressure to 400 lbs Material of Stays ✓
 Area at smallest part ✓ Area supported by each stay ✓ Working Pressure by Rules ✓ Tubes:—Diameter 102 mm
 Thickness 4.5/5.0 mm Number 221 Steam Dome or Collector:—Description of Joint to Shell ✓
 Percentage strength of Joint ✓ Diameter ✓ Thickness of shell plates ✓ Material ✓
 Description of longitudinal joint ✓ Diameter of Rivet Holes ✓ Pitch of Rivets ✓ Working Pressure of shell by Rules ✓
 Crown or End Plates:—Material ✓ Thickness ✓ How stayed ✓

UPPERHEATER. Type ✓ Date of Approval of Plan ✓ 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 ✓
 Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is easing gear fitted ✓
 Is a drain cock or valve fitted at lowest point of superheater ✓ Number, diameter, and thickness of tubes ✓
 Spare Gear. Tubes 24 Gaskets or joints:—Manhole 10 Handhole ✓ Handhole plates 14

The foregoing is a correct description,
see Hamburg Surveyor Report Manufacturer.

Dates of Survey while building } During progress of work in shops - - } Is the approved plan of boiler forwarded herewith 14.5.30
 } During erection on board vessel - - - } Total No. of visits 5

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed in accordance with Special Survey (please see Hamburg Surveyor Report No. 19576). They have been satisfactorily fitted on board, examined under steam found tight and their safety valves have been adjusted to 200 lbs. for steam. They are eligible in my opinion to be classed in the Society's Register Book with record of 2 Water Tube D.B. 200 lbs. Thickness of adjusting washers:—

Survey Fee ... £ See engine } When applied for, 19
 Travelling Expenses (if any) £ Report } When received, 19

port boiler 17 mm Starboard boiler 17 mm
 starboard 15 mm 19 mm
G. H. E. Kramm
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 5 MAY 1931
 Assigned See F.E. Rpt.

