

REPORT ON WATER TUBE BOILERS.

No. 18656

29 APR 1929

Received at London Office

Writing Report 16th APRIL 1929 When handed in at Local Office 19 Port of HAMBURG.
 Survey held at KIEL Date, First Survey 26th MARCH 1928 Last Survey 4th April 1929
 on the Steel Twin Sc. N. V. "CALIFORNIA STANDARD" (Number of Visits 17) Tons { Gross 11445
 Built at KIEL By whom built FRIED. KRUPP-GERMANIA WERFT. A.G. When built 1929
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 red Horse Power 9985 Owners STANDARD OIL CO. of CALIFORNIA Port belonging to S. FRANCISCO.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Krupp & Sohn G.m.b.H. - Kallert.
 for Record S. Date of Approval of plan 24. 9. 27 Number and Description or Type
 2 Water Tube Donkey Boilers N^{os} 3746/47 Working Pressure 145 lb./sq. in. Tested by Hydraulic Pressure to 400 lb. Date of Test 3/9/28 - 7/9/28
 Certificate 473-474 Can each boiler be worked separately yes Total Heating Surface of Boilers 2 x 167 sq. m.
 draught fitted yes Area of fire grate (coal) in each Boiler oil fired Total grate area of boilers in vessel including
 and Auxiliary 2 No. and type of burners (oil) in each boiler 2 Ray Junior No. and description of safety valves on
 boiler 2 Spring loaded. Area of each valve 75 sq. in. Pressure to which they are adjusted 145 lb. (200 lb.)
 ey fitted with easing gear yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler yes
 est distance between boilers 1000 mm. Height of Boiler 4300 mm. Width and Length 3150 x 4500 mm.
 Drums:—Number in each boiler 1 Inside diameter 1400 mm. Material of plates Steel Thickness 22 mm.
 of Tensile Strength 44-50 kg. Are drum shell plates welded or flanged flanged Description of riveting:—
 seams double long. seams double Diameter of rivet holes in long. seams 28 mm. Pitch of Rivets 93 mm.
 of plate or width of butt straps 268 mm. Thickness of straps 18 mm. - 16 mm. Percentage strength of long. joint:—Plate 69.5% Rivet 92.3%
 eter of tube holes in drum 95 mm. Pitch of tube holes 185 x 160 mm. Percentage strength of shell in way of tubes 48.65%
 drum has a flat side state method of staying yes Depth and thickness of girders at centre
 Distance apart yes Number and pitch of stays in each yes Working pressure
 les approved. Steam Drum Heads or Ends:—Material Steel Thickness 25 mm. - 28 mm. Radius or how stayed 1260 mm.
 of Manhole or Handhole 320 x 425 mm. Water Drums:—Number in each boiler yes Inside Diameter
 Thickness yes Range of tensile strength yes Are drum shell plates welded
 Description of riveting:—Cir. seams yes long. seams yes Diameter of Rivet Holes in
 Pitch of rivets yes Lap of plates or width of butt straps yes Thickness of straps
 Percentage strength of long. joint:—Plate yes Rivet yes Diameter of tube holes in drum yes Pitch of tube holes
 Percentage strength of drum shell in way of tubes yes Water Drum Heads or Ends:—Material yes Thickness
 us or how stayed yes Size of manhole or handhole yes Headers or Sections:—Number 2
 rial Steel Thickness 22 mm. - 19 mm. Tested by Hydraulic Pressure to 28 kg. (400 lb.) Material of Stays Steel
 at smallest part 29 mm. Area supported by each stay 160 x 125 mm. Working Pressure by Rules 14.3 kg./cm² Tubes:—Diameter 95 mm.
 Thickness 5 mm. - 4.5 mm. Number 196 Steam Dome or Collector:—Description of Joint to Shell
 Percentage strength of Joint yes Diameter yes Thickness of shell plates yes Material
 Description of longitudinal joint yes Diameter of Rivet Holes yes Pitch of Rivets yes Working Pressure of shell
 Rules yes Crown or End Plates:—Material yes Thickness yes How stayed yes
HEATER. Type yes Date of Approval of Plan yes Tested by Hydraulic Pressure to yes
 of Test yes Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler
 eter of Safety Valve yes Pressure to which each is adjusted yes Is easing gear fitted
 drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes
 re Gear. Tubes 26 Gaskets or joints:—Manhole 4 Handhole 250 Handhole plates 6

The foregoing is a correct description,
FRIED. KRUPP
GERMANIA WERFT
 Aktiengesellschaft
 Manufacturer.

During progress of 26/3 - 16/4 - 16/5 - 13/6 - 3/7 - 6/7 - 6/8 - 17/8 - 20/8 - 31/8 - 3/9 - 7/9 Is the approved plan of boiler forwarded herewith yes
 work in shops - - -
 During erection on 22/2 - 13/3 - 22/3 - 3/4 - 4/4/29 Total No. of visits 17
 board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Material and workmanship of these Donkey
boilers are of good quality. The materials used in the construction are made at works recognized by the Committee and
by the Society's Surveyors. These Donkey Boilers having been made under Special Survey in accordance with
approved plan, the Secretary's letter and otherwise in conformity with the requirements of the Rules are
in my opinion to be classed and recorded in the Reg. of S. D. Pressure - 200 lbs.

Survey Fee ... £ : : When applied for, 19
 Travelling Expenses (if any) £ : : When received, 19

In Machinery Report

Friedrich Hill
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 3 MAY 1929
 signed L. T. J. B. Looft (See P. 6 of attached)