

## REPORT ON WATER TUBE BOILERS.

No. 14211

28 DEC 1926

Received at London Office

Date of writing Report 23<sup>rd</sup> Dec. 1926, When handed in at Local Office

19

Port of HAMBURG.

No. in Survey held at Kiel Date, First Survey 8<sup>th</sup> June Last Survey 21<sup>st</sup> Dec. 1926.  
 Reg. Bk. 70317 on the Steel Twin Sc. "G. HARRISON SMITH" Number of Visits 11 Tons Gross 15371  
 Master Built at SPARROW'S POINT By whom built BETHLEHEM S.S. CORP. LD. When built 1921  
 Engines made at SHIP WILLES CONVERSION By whom made GREYER WILCOX When made 1926  
 Boilers made at Kiel By whom made FRIED TRUPP-GERMANIAWERFT When made 1926  
 Registered Horse Power Owners INTERNATIONAL PETROLEUM CO. LD. Port belonging to HALIFAX N.S.

**WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.** Manufacturers of Steel Henschel & Sohn - Hamburg.  
 (Letter for Record S.) Date of Approval of plan 26. 1. 26. Number and Description or Type  
 of Boilers 2 Water Tube Donkey Boilers. Working Pressure 17.6 kg (250 lb.) Tested by Hydraulic Pressure to 425 lb. Date of Test 3/9/26.  
 No. of Certificate 440-441. Can each boiler be worked separately. Yes Total Heating Surface of Boilers 3240 sq. ft. - 300 sq. m.  
 Is forced draught fitted Yes Area of fire grate (coal) in each Boiler oil fired Total grate area of boilers in vessel including  
 Main and Auxiliary Yes No. and type of burners (oil) in each boiler Yes No. and description of safety valves on  
 each boiler Yes Area of each valve Yes Pressure to which they are adjusted Yes  
 Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork Yes Height of Boiler 5' 2 1/4 in. Width and Length 3' 5 1/2 in.  
**Steam Drums:**—Number in each boiler 1 Inside diameter 1400 mm Material of plates Steel Thickness 24 mm  
 Range of Tensile Strength 44-50 kg Are drum shell plates welded or flanged flanged Description of riveting:—  
 Cir. seams lp. double long. seams double Diameter of rivet holes in long. seams 28 mm Pitch of Rivets 9' 3 in.  
 Lap of plate or width of butt straps 266 mm Thickness of straps 19 mm Percentage strength of long. joint:—Plate 69.5% Rivet 84.6%  
 Diameter of tube holes in drum 95 mm Pitch of tube holes 225 mm Percentage strength of shell in way of tubes 57.8%  
 If Drum has a flat side state method of staying Yes Depth and thickness of girders at centre  
 (if fitted) Yes Distance apart Yes Number and pitch of stays in each Yes Working pressure  
 by rules 17.98 kg/cm<sup>2</sup> **Steam Drum Heads or Ends:**—Material Steel Thickness 30 mm Radius or how stayed 1260 mm  
 Size of Manhole or Handhole 320 x 425 mm **Water Drums:**—Number in each boiler Yes Inside Diameter Yes  
 Material of plates Yes Thickness Yes Range of tensile strength Yes Are drum shell plates welded  
 or flanged Yes Description of riveting:—Cir. seams Yes long. seams Yes Diameter of Rivet Holes in  
 long. seams Yes Pitch of rivets Yes Lap of plates or width of butt straps Yes Thickness of straps Yes  
 Percentage strength of long. joint:—Plate Yes Rivet Yes Diameter of tube holes in drum Yes Pitch of tube holes Yes  
 Percentage strength of drum shell in way of tubes Yes **Water Drum Heads or Ends:**—Material Yes Thickness Yes  
 Radius or how stayed Yes Size of manhole or handhole Yes **Headers or Sections:**—Number 2  
 Material Steel Thickness 22 mm - 19 mm Tested by Hydraulic Pressure to 425 lb. Material of Stays Steel  
 Area at smallest part 64 mm Area supported by each stay 24000 sq. mm Working Pressure by Rules 17.88 kg **Tubes:**—Diameter 85 mm  
 Thickness 6.5 mm - 5 mm Number 31 + 140 **Steam Dome or Collector:**—Description of Joint to Shell  
 Percentage strength of Joint Yes Diameter Yes Thickness of shell plates Yes Material Yes  
 Description of longitudinal joint Yes Diameter of Rivet Holes Yes Pitch of Rivets Yes Working Pressure of shell  
 by Rules Yes **Crown or End Plates:**—Material Yes Thickness Yes How stayed Yes

**SUPERHEATER.** Type Schmidt Patent Date of Approval of Plan 25/5/26. Tested by Hydraulic Pressure to 750 lb.  
 Date of Test 11/10/26. Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes  
 Diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is easing gear fitted Yes  
 Is a drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes 8 coils - 32 mm - 3 mm.  
 Spare Gear. Tubes Yes Gaskets or joints:—Manhole Yes Handhole Yes

**FRIED TRUPP  
GERMANIAWERFT**  
The foregoing is a correct description,  
Manufacturer.

Dates of Survey During progress of 8/6-11/6-13/6-28/7-3/8-3/9-17/9-1/10-11/10-26/10-31/12/26 As the approved plan of boiler forwarded herewith yes.  
 while building During erection on board vessel - - - Total No. of visits 11.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) Material and Workmanship of these  
Water Tube Donkey Boilers are of good quality. The materials used in the construction are made at local works  
mixed by the Committee and tested by the Society's Surveyors. These boilers have been built under Special Survey  
in accordance with the approved plan & the Secretary's Letter and are, in my opinion, fit to record  
N.D.B (N.T.), subject to completion on board. (with date). The boilers have been shipped to Liverpool to be fitted  
on board.

Survey Fee ... £ 21 : 12 : - When applied for, 23. 12. 26  
 Travelling Expenses (if any) £ 4 : 4 : - When received, 28. 1. 27

Committee's Minute

TUES. 6 MAR 1928

Engineer Surveyor to Lloyd's Register of Shipping.

TUES. 6 MAR 1928

Assigned

Not for Passing Committee

See Return. No. 1000.

Lloyd's Register  
Foundation

005726-005739-0224