

REPORT ON WATER TUBE BOILERS.

No. 16726
8 - MAR 1926

Rpt. 5c.

Received at London Office

Port of **HAMBURG**

Date of writing Report **23 Feb. 1926** When handed in at Local Office **6-3-26** 19 **26** Date, First Survey **4 Feb. 1925** Last Survey **26 February 1926**

No. in Survey held at **MIEL** Number of Visits **16** Tons { Gross **4509**
Reg. Bk. **40044** on the **Steel Twin Sc. Motor T. "MONTROLITE"** Net **6668**

Master Built at **MIEL** By whom built **FRIEDRUPP-GERMANIAWERFT** When built **1926**

Engines made at **MIEL** By whom made **FRIEDRUPP-GERMANIAWERFT A.G.** When made **1926**

Boilers made at **MIEL** By whom made **FRIEDRUPP-GERMANIAWERFT A.G.** When made **1926**

Registered Horse Power **908** Owners **IMPERIAL OIL, LD.** Port belonging to **TORONTO**

WATER TUBE BOILERS—MAIN, **AUXILIARY, OR DONKEY**.—Manufacturers of Steel **Fried. Krupp. A.G. - Essen**

(Letter for Record **S**) Date of Approval of plan **14/4/24** Number and Description or Type **400 Lb.** Date of Test **15.12.25**

No. of Certificate **407-408** Can each boiler be worked separately **yes** Total Heating Surface of Boilers **28019 sq. ft.**

Is forced draught fitted **yes** Area of fire grate (coal) in each boiler **oil fired** Total grate area of boilers in vessel including **200 lb.**

Main and Auxiliary **2 Spring loaded** No. and type of burners (oil) in each boiler **3 Valve burner** No. and description of safety valves on **200 lb.**

each boiler **2 Spring loaded** Area of each valve **70 sq. in.** Pressure to which they are adjusted **200 lb.**

Are they fitted with easing gear **yes** In case of donkey boilers state whether steam from **main** boilers can enter the **donkey** boiler **no, non return valve**

Smallest distance between boilers or uptakes and bunkers **2000 mm.** Height of Boiler **4707 mm.** Width and Length **3315 mm. - 4600 mm.**

Steam Drums:—Number in each boiler **44-50** Are drum shell plates welded or flanged **flanged** Description of riveting:— **93 mm.**

Range of Tensile Strength **44-50 kg/cm²** Diameter of rivet holes in long. seams **28 mm.** Pitch of Rivets **93 mm.**

Cir. seams **double butt** long. seams **double butt** Diameter of rivet holes in long. seams **28 mm.** Percentage strength of long. joint:—Plate **70%** Rivet **91.5%**

Lap of plate or width of butt straps **268 mm.** Thickness of straps **17 mm.** Percentage strength of shell in way of tubes **48.6%**

Diameter of tube holes in drum **95 mm.** Pitch of tube holes **185 mm.** Depth and thickness of girders at centre **1260 mm.**

If Drum has a flat side state method of staying **Distance apart** Number and pitch of stays in each **Steel** Thickness **24 mm. - 27 mm.** Radius or how stayed **1260 mm.**

(if fitted) **14.05 kg/cm²** Steam Drum Heads or Ends:—Material **Steel** Inside Diameter **2000 mm.**

Size of Manhole or Handhole **300 x 400 mm.** Water Drums:—Number in each boiler **2** Are drum shell plates welded **no**

Material of plates **Steel** Range of tensile strength **44-50 kg/cm²** Diameter of Rivet Holes in **28 mm.**

or flanged **no** Description of riveting:—Cir. seams **double butt** long. seams **double butt** Thickness of straps **17 mm.**

long. seams **double butt** Pitch of rivets **93 mm.** Lap of plates or width of butt straps **268 mm.** Pitch of tube holes **185 mm.**

Percentage strength of long. joint:—Plate **70%** Rivet **91.5%** Diameter of tube holes in drum **95 mm.** Thickness **17 mm.**

Percentage strength of drum shell in way of tubes **48.6%** Headers or Sections:—Number **2** Material of Stays **Steel**

Radius or how stayed **1260 mm.** Size of manhole or handhole **300 x 400 mm.** Tested by Hydraulic Pressure to **400 lb.** Tubes:—Diameter **95 mm.**

Material **Steel** Thickness **22 mm.** Area supported by each stay **224 sq. cm.** Working Pressure by Rules **22.5 kg/cm²**

Area at smallest part **29 mm.** Thickness of shell plates **17 mm.** Description of Joint to Shell **no**

Thickness **5.5 mm. & 4.5 mm.** Number **177** Steam Dome or Collector:—Description of Joint to Shell **no**

Percentage strength of joint **70%** Diameter of Rivet Holes **28 mm.** Pitch of Rivets **93 mm.** Working Pressure of shell **22.5 kg/cm²**

Description of longitudinal joint **no** Thickness **17 mm.** How stayed **no**

by Rules **no** Crown or End Plates:—Material **Steel** Tested by Hydraulic Pressure to **400 lb.**

SUPERHEATER. Type **no** Date of Approval of Plan **14/4/24** Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler **no**

Date of Test **15.12.25** Pressure to which each is adjusted **200 lb.** Is easing gear fitted **no**

Diameter of Safety Valve **no** Number, diameter, and thickness of tubes **no**

Is a drain cock or valve fitted at lowest point of superheater **no** Handhole **no** Handhole plates **no**

Spare Gear. Tubes **no** Gaskets or joints:—Manhole **no** Handhole **no** Handhole plates **no**

WORKING BOILERS. **407/408** **THICKNESS OF ADT. WEBS.** **22.5 kg/cm²** **24 mm.** **13 mm.**

400 LBS. TEST **22.5 kg/cm²** **24 mm.** **13 mm.**

W.P. 200 LBS. W.T. 15.12.25. **22.5 kg/cm²** **24 mm.** **13 mm.**

Dates of Survey **4/8-8/9-7/9-6/10-16/10-24/10-29/10-4/11-11/11-15/12/25** Is the approved plan of boiler recorded herewith **yes**

During progress of work in shops **no** Total No. of visits **16**

During erection on board vessel **no**

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.)

The materials used in the construction are made at works recognized by the Committee and tested by the Society's Surveyors in accordance with the Rules. These boilers having been built under Special Survey in conformity with the approved plan, the Secretary's letter and otherwise in accordance with the requirements of the Rules are, in my opinion, fit for record. **N.D.B. (W.T.)-26** (The lowest strength of drum and plates is 44.5 kg/cm²)

Survey Fee ... £ 8. : 8

Travelling Expenses (if any) £

When applied for, **17 Feb. 1926**

When received, **12.3.1926**

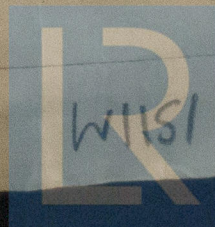
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 19 MAR 1926

See J.E. app attached



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