

REPORT ON WATER TUBE BOILERS.

No. 126380

Received at London Office 7th JAN 1948

Date of writing Report 19... When handed in at Local Office 19... Port of **LIVERPOOL**

No. in Reg. Bk. Survey held at **Birkenhead** Date, First Survey... Last Survey 19...
 on the **S.S. "TRESUS" & "LAUREL HILL"** (Number of Visits...)
 Master... Built at **Portland Oreg.** By whom built **Kaiser-Boyard** Tons { Gross 19,449 Net 6301
 Engines made at **U.S.A.** By whom made **G.F.C. Eng: no 68244** When built 1944/11
 Boilers made at **Tennessee** By whom made **Combustion Engine Co** When made **no = 9663(S) 1944/8**
 Registered Horse Power **6800 BHP** Owners... When made **no = 9665(S) 1944/7**

WATER TUBE BOILERS—MAIN, ~~AUXILIARY, OR DONKEY~~—Manufacturers of Steel **Bethlehem Steel Co**

(Letter for Record...) Date of Approval of plan... Number and Description or Type of Boilers **2 Sectional Header** Working Pressure **450 lbs** Tested by Hydraulic Pressure to **750** Date of Test **3/44**

No. of Certificate **21776** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **4934 sq ft**

Is forced draught fitted **Yes** Area of fire grate (coal) in each Boiler... Total grate area of boilers in vessel including...
 Main and Auxiliary **Yes** No. and type of burners (oil) in each boiler **4 - Jodds** No. and description of safety valves on each boiler **2** Area of each valve **2 1/2"** Pressure to which they are adjusted **460 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 **approx 3/8"** Height of Boiler **21'-0"** Width and Length **11'-0" x 17'-6"**

Steam Drums:—Number in each boiler **1** Inside diameter **3'-5 1/2"** Material of plates **steel** Thickness **3/16"**
 Range of Tensile Strength **70,000 lbs** Are drum shell plates welded or flanged **Welded** Description of riveting:—
 Cir. seams... long. seams... Diameter of rivet holes in long. seams... Pitch of Rivets...
 Lap of plate or width of butt straps... Thickness of straps... Percentage strength of long. joint:—Plate... Rivet...
 Diameter of tube holes in drum **4 1/2"** Pitch of tube holes **7"** Percentage strength of shell in way of tubes **42.8**

If Drum has a flat side state method of staying (if fitted) **Yes** Distance apart... Depth and thickness of girders at centre by rules... Working pressure...
 Size of Manhole or Handhole **12" x 16"** Material **Steel** Thickness **1 1/2"** Radius or how stayed...
 Material of plates **Steel** Thickness **3/16"** Water Drums:—Number in each boiler **5** Inside Diameter **5'4" x 5'4"**
 Are drum shell plates welded... long. seams... Diameter of Rivet Holes in...
 Percentage strength of long. joint:—Plate... Rivet... Diameter of tube holes in drum **4 1/2"** Thickness of straps...
 Percentage strength of drum shell in way of tubes... Pitch of tube holes **6 3/4"**

Water Drum Heads or Ends:—Material **Steel** Thickness **7/16"** Size of manhole or handhole...
 Headers or Sections:—Number **14** Tested by Hydraulic Pressure to **750 lbs** Material of Stays...
 Area at smallest part... Area supported by each stay... Working Pressure by Rules... Tubes:—Diameter **1 1/2"**
 Thickness **13-16-6 G.** Number **1148, 58.60** Steam Dome or Collector:—Description of Joint to Shell **nipple**
 Percentage strength of Joint... Diameter **5'4" x 5'4"** Thickness of shell plates **3/16"** Material **Steel**
 Description of longitudinal joint **S.D.** Diameter of Rivet Holes... Pitch of Rivets... Working Pressure of shell
 Rules... Crown or End Plates:—Material **Steel** Thickness **1 1/2"** How stayed...

PREHEATER. 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 **1 1/2"** Pressure to which each is adjusted **460 lbs** Is easing gear fitted **Yes**
 Is a drain cock or valve fitted at lowest point of superheater **Yes** Number, diameter, and thickness of tubes **145 1 1/2" 11 G.**
 Spare Gear. Tubes... Gaskets or joints:—Manhole... Handhole... Handhole plates...
H.S. per boiler = 4934 sq ft
Spt = 743 sq ft Total = **11354 sq ft**

The foregoing is a correct description, Manufacturer.

Dates of Survey: During progress of work in shops... Is the approved plan of boiler forwarded herewith...
 While... During erection on board vessel... Total No. of visits...

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
For the information of the Committee.

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

Bedford
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **LIVERPOOL - 6 JAN 1948**
 signed **See Minute on Machinery Report.**

