

# REPORT ON BOILERS.

Received at London Office

Date of writing Report **May 8 1941** when handed in at Local Office **Port of New York**

No. in Survey held at **Schenectady, N.Y.** Date, First Survey **March 24th** Last Survey **May 6th 1941**

Reg. Book. on the **British Government Freighters S/S "Ocean Stranger"** (Number of Visits **40**)

Master **Built at S. Portland, Me. By whom built Todd, Bath Iron Ship Building Co. When built**

Engines made at **Hamilton, Ohio** By whom made **General Machinery Corp.** When made **1941**

Boilers made at **Schenectady, N.Y.** By whom made **American Locomotive Co.** When made **1941**

Nominal Horse Power **503 505** Owners **British Government** Port belonging to **-**

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel **Worth Steel Co.**

(Letter for record (S) ) Total Heating Surface of Boilers **7140 sq.ft.** Is forced draft fitted **Yes** No. and Description of Boilers **One (1) Scotch Type**

Working Pressure **220 lbs.** Tested by hydraulic pressure to **380 lbs.** Date of test **6-5-41**

No. of Certificate **S-4** Can each boiler be worked separately **yes** Area of fire grate in each boiler **43 sq.ft.** No. and Description of safety valves to each boiler **2 spring loaded high lift**

Area of each valve **5.52 sq. in.** Pressure to which they are adjusted **225 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 **See installation report** Mean dia. of boilers **14' 6 3/16"** Length **11' 8 1/32"**

Material of shell plates **Steel** Thickness **1 13/32** Range of tensile strength **65,000 to 75,000 Lbs.** Are the shell plates welded or flanged **No**

Descrip. of riveting: cir. seams **Double lap** long. seams **T.R.D.B.S.** Diameter of rivet holes in long. seams **1 1/2** Pitch of rivets **10"**

~~width of butt straps~~ **22 1/8"** Per centages of strength of longitudinal joint **93.5** Working pressure of shell by rules **222 Lbs.** Size of manhole in shell **None** Size of compensating ring **-**

No. and Description of Furnaces in each boiler **3 Morison** Material **Steel** Outside diameter **44 1/2"** Length of plain part **9 3/16** Thickness of plates **21/32**

Description of longitudinal joint **Welded** No. of strengthening rings **None** Working pressure of furnace by the rules **231 Lbs.** Combustion chamber plates: Material **Steel** Thickness: Sides **25/32"** Back **23/32"** Top **25/32"** Bottom **25/32"** Pitch of stays to ditto: Sides **9 x 10 3/16** Back **9 x 9**

Top **11 x 7 5/8** If stays are fitted with nuts or riveted heads **Nuts** Working pressure by rules **225 Lbs.** Material of stays **Steel** Area at smallest part **2.02 sq. in.** supported by each stay **100 sq. in.** Working pressure by rules **224** End plates in steam space: Material **Steel** Thickness **1 7/16**

Pitch of stays **21"** How are stays secured **Nuts** Working pressure by rules **242** Material of stays **Steel** Area at smallest part **9.62 sq. in.**

Area supported by each stay **446 sq. in.** Working pressure by rules **242** Material of Front plates at bottom **Steel** Thickness **31/32** Material of Lower back plate **Steel** Thickness **29/32** Greatest pitch of stays **14 1/2" x 9"**

Working pressure of plate by rule **232 Lbs.** Diameter of tubes **3"**

Pitch of tubes **4 1/4 x 1/8** Material of tube plates **Steel** Thickness: Front **31/32** Back **13/16** Mean pitch of stays **9.45"** Pitch across wide water spaces **14 1/2 x 8 1/4**

Working pressures by rules **233 Lbs.** Girders to Chamber tops: Material **Steel** Depth and thickness of girder at centre **10 1/4" x 1 3/4"** Length as per rule **2' 10"** Distance apart **11"**

Number and pitch of Stays in each **3 - 7 5/8"**

Working pressure by rules **229 Lbs.** Steam dome: description of joint to shell **No Dome** % of strength of joint **-**

Diameter **-** Thickness of shell plates **-** Material **-** Description of longitudinal joint **-** Diam. of rivet holes **-**

Pitch of rivets **-** Working pressure of shell by rules **-** Crown plates **-** Thickness **-** How stayed **-**

**SUPERHEATER.** Type **N.E. Marine Engine Co.** Date of Approval of Plan **See Installation Report** 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 **-**

*The foregoing is a correct description,*  
*R. J. Smith, M. Eng., Ins. L. C. S. Manufacturer.*

Dates of Survey **During progress of work in shops - - 24th March 1941 to 26th May, 1941** Is the approved plan of boiler forwarded herewith **90th Boiler**

while building **During erection on board vessel - - -** (Continuous attendance) Total No. of visits **Forty** days

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

This Boiler has been built under Special Survey in accordance with the Rules & approved plans, and the workmanship and material are good. It has been satisfactorily tested to 380 lbs. by hydraulic pressure in presence of the undersigned. It has been forwarded to S. Portland, Maine to be fitted on board, & when this has been done in accordance with the Rules, the vessel will be eligible in my opinion to receive the notations **L M C** with date, and **220 lbs.** and **FD** in the Register Book.

Survey Fee ... **£ See Machinery Report** When applied for, **191**

Travelling Expenses (if any) **£ Report** When received, **191**

Committee's Minute **Assigned See First Entry Report.**

