

# REPORT ON BOILERS.

No. 5222

Received at London Office

Date of writing Report APR. 15<sup>th</sup> 1926. When handed in at Local Office APR. 15<sup>th</sup> 1926. Port of PHILADELPHIA

No. in Survey held at CAMDEN, N. J. Date, First Survey FEB. 13<sup>th</sup> 1925 Last Survey APR. 9<sup>th</sup> 1926

Reg. Book. on the T. S. S. MOTORSHIP "GULFCREST" (Number of Visits 16) Gross 8952 Tons Net 5578

Master ✓ Built at CAMDEN, N. J. By whom built AMER. BROWN BOYER ELECT. CORP. When built 1926

Engines made at CAMDEN, N. J. By whom made DO. When made 1926

Boilers made at DO. By whom made DO. When made 1926

Registered Horse Power Owners GULF REFINING CO. Port belonging to PORT ARTOR, TEXAS

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel BETHLEHEM STEEL CO. ✓

Letter for record Y Total Heating Surface of Boilers 3487.8 sq ft Is forced draft fitted YES. No. and Description of Boilers TWO MULTITUBULAR Working Pressure 150 lbs. Tested by hydraulic pressure to 275 lbs. Date of test 31-7-25

No. of Certificate 557 Can each boiler be worked separately YES. Area of fire grate in each boiler 42.16 sq ft No. and Description of Safety valves to each boiler TWO SPRING LOADED Area of each valve 9.62 sq in. Pressure to which they are adjusted 150 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 — Mean dia. of boilers 12'-6" Length 11'-0"

Material of shell plates STEEL Thickness 15/16" Range of tensile strength 28-32 TONS Are the shell plates welded or flanged NO.

Description of riveting: cir. seams D.R. LAP long. seams D.B. STRAPS Diameter of rivet holes in long. seams 1 5/32" Pitch of rivets 6 19/32"

Gap of plates or width of butt straps 1 5/4" Per centages of strength of longitudinal joint rivets 95. plate 82.4 Working pressure of shell by rules 156 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 34 1/2" x 29 1/4" No. and Description of Furnaces in each boiler TWO CORR. ✓ Material STEEL Outside diameter 4'-2 9/32" Length of plain part — Thickness of plates crown 4 1/4" bottom 6 1/4"

Description of longitudinal joint WELDED. No. of strengthening rings — Working pressure of furnace by the rules 197 lbs. Combustion chamber plates: Material STEEL Thickness: Sides 9/16" Back 17/32" Top 9/16" Bottom 3/4" Pitch of stays to ditto: Sides 8 1/4" x 7 1/4" Back 7 1/2" x 7" Top 8 1/4" x 7" If stays are fitted with nuts or riveted heads NUTS. Working pressure by rules 179/182 Material of stays IRON Area at smallest part 1 1/2" Area supported by each stay 52.5 sq in. Working pressure by rules 238 End plates in steam space: Material STEEL Thickness 1" Pitch of stays 18" x 14" How are stays secured DO. NUTS Working pressure by rules 177 Material of stays STEEL Area at smallest part 4.43 Area supported by each stay 252 sq in. Working pressure by rules 190 Material of Front plates at bottom STEEL Thickness 1" Material of cover back plate STEEL Thickness 1" Greatest pitch of stays 17" x 9" Working pressure of plate by rules 150 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 1/2" Material of tube plates STEEL Thickness: Front 1" Back 9/16" Mean pitch of stays 7 1/2" x 7" Pitch across wide water spaces 13" Working pressures by rules 193-229 Girders to Chamber tops: Material STEEL Depth and thickness of order at centre 8 1/2" x 1 1/2" Length as per rule 33" Distance apart 7" Number and pitch of Stays in each 3-8 1/4" Working pressure by rules 225 Steam dome: description of joint to shell NONE. % 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 —

**PERHEATER.** Type NONE 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 — Pressure to which each is adjusted — Is Easing Gear fitted —

The foregoing is a correct description,  
American Brown Boveri Electric Corp. M. Buchanan Manufacturer.

Dates of Survey 1925 During progress of work in shops: FEB. 13, MAR. 20, APR. 2, 7, 18, MAY 2, 14 Is the approved plan of boiler forwarded herewith YES.  
While on board vessel: 26, JUNE 15, JULY 31, AUG. 19, SEP. 9  
During erection on board vessel: DEC. 14, JAN. 26, FEB. 16, APR. 9 Total No. of visits 16

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)  
THE BOILERS WERE BUILT UNDER SPECIAL SURVEY, THE MATERIALS & WORKMANSHIP ARE OF GOOD DESCRIPTION, THEY WERE TESTED BY HYDRAULIC PRESSURE TO 275 LBS. PER SQ. INCH AND FOUND TIGHT & SOUND IN EVERY RESPECT. THEY HAVE BEEN SATISFACTORILY FITTED ON BOARD, AND THEIR SAFETY VALVES ADJUSTED TO 150 LBS. P.S.I.

Survey Fee ... \$150.00 : When applied for, 28<sup>th</sup> April 1926  
Travelling Expenses (if any) £ : When received, 24. 5 1926

Committee's Minute NEW YORK MAY 5 1926  
Signed D.B. 150 lb. M. Buchanan Engineer, Surveyor to Lloyd's Register of Shipping.

