

# REPORT ON BOILERS.

Received at London Office

27 JAN 1943

Date of writing Report June 10 1941 When handed in at Local Office 1941 Port of NEW YORK

No. in Survey held at Schenectady, N. Y. Date, First Survey May 3rd. Last Survey June 9th 1941

Reg. Book. British Government Freighters S/S "Ocean Messenger" (Number of Visits 30) } Gross Tons } Net

Master TORONTO, ONT Built at S. Portland, Me. By whom built Todd-Bath Iron Shipbuilding Corp. When built 1941

Engines made at Hamilton, Ohio By whom made General Machinery Corporation 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 9-6-41

No. of Certificate S-28 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 load high lift Area of each valve 5.52 sq. in. approved 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 Report

Smallest distance between boilers or uptakes and bunkers or woodwork See Installation/ 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 to 75000 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"

Lap of plates or width of butt straps 22-1/8" Per centages of strength of longitudinal joint rivets 93.5 Working pressure of shell by plate 85

rules 222 lbs Size of manhole in shell None Size of compensating ring  No. and Description of Furnaces in each boiler 3 Morrison Material Steel Outside diameter 44 1/2" Length of plain part 9-3/16" Thickness of plates crown 21/32" bottom

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. Area supported by each stay 100 sq. in. Working pressure by rules 224 lbs. End plates in steam space: Material Steel Thickness 1-7/16"

Pitch of stays 21 1/4" x 21" How are stays secured Double Nuts Working pressure by rules 242 lbs. 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 lbs. 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 rules 232 lbs. Diameter of tubes 3"

Pitch of tubes 4 1/4" x 4-1/8" 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 -

UPERHEATER. 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. A. Smith* Mech. Engr. for American Locomotive Co. Manufacturer.

Dates of Survey During progress of work in shops - - May 3rd 1941 to June 9th 1941 Is the approved plan of boiler forwarded herewith Retained for 90 boilers.

while building During erection on board vessel - - - Continuous Attendance  Total No. of visits Thirty Days

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boiler has been built under special survey in accordance with the Rules and approved plans & the workmanship & material is 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, and when this has been done in accordance with the rules, the vessel will be eligible in my opinion to receive the notation  $\dagger$  LMC with date, and 220 lbs. and FD in the Register Book.

Survey Fee ... See: Mch. report When applied for. 191

Travelling Expenses (if any) See: Mch. report When received. 191

Committee's Minute NEW YORK DEC 23 1941

Assigned See First Entry Report.



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