

REPORT ON BOILERS.

No. 20474  
JUL 12 1921

Date of writing Report 7 June 1921 When handed in at Local Office 1921 Port of New York  
No. in Survey held at Kearny, New Jersey Date, First Survey 1921 Last Survey 2-6-1921  
Reg. Book. on the Twin Screw Steel Oil Tanker E. T. BEDFORD. Hull 48. Gross 10396 61.  
Master R. A. Smith Built at Kearny, New Jersey By whom built Federal Ship Building Co When built 1921  
Engines made at Kearny, New Jersey By whom made Federal Ship Building Co When made 1921  
Boilers made at Kearny, New Jersey By whom made Federal Ship Building Co When made 1920  
Registered Horse Power 3500 I.H.P. Owners Standard Oil Company Port belonging to New Jersey

MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel Carnegie Steel Co.  
(Letter for record S) Total Heating Surface of Boilers 1234 sq. ft. Is forced draft fitted No No. and Description of Boilers 1-2 Furnace Single Ended Scotch Working Pressure 180# Tested by hydraulic pressure to 270# per sq. in. Date of test 22-11-20  
No. of Certificate 397 Can each boiler be worked separately Yes Area of fire grate in each boiler 39 sq. ft. No. and Description of safety valves to each boiler 1-2 1/2" Twin Spring Area of each valve 4.9 sq. in. Pressure to which they are adjusted 180#  
Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No  
Smallest distance between ~~boilers~~ or uptakes and bunkers or ~~woodwork~~ 6'-0" INSIDE Mean dia. of boilers 10'-11" Length 10'-10 1/2"  
Material of shell plates S Thickness 1" Range of tensile strength 2635-32400 Are the shell plates welded or flanged No  
Descrip. of riveting: cir. seams D.R. LAP long. seams TR/DBS Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 6 3/8"  
~~Lap of plates~~ width of butt straps 17 3/4" Per centages of strength of longitudinal joint rivets 103.2 Working pressure of shell by rules 183# Size of manhole in shell 16"x12" Size of compensating ring 34"x30" No. and Description of Furnaces in each boiler 2 Morrison Material S Outside diameter 43 1/6" Length of plain part top 17'32" Thickness of plates bottom 17'32"  
Description of longitudinal joint Welded No. of strengthening rings Yes Working pressure of furnace by the rules 204# Combustion chamber plates: Material S Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 3/4" Pitch of stays to ditto: Sides 7"x7" Back 7 1/4"x7"  
Top 7"x7" If stays are fitted with nuts or riveted heads Top NUTS Rivetted Working pressure by rules T=276# S=196# B=196# Material of stays S Area at smallest part 1'52" Area supported by each stay 49" Working pressure by rules T=248# S=248# B=240# End plates in steam space: Material S Thickness 29/32"  
Pitch of stays 14"x14" How are stays secured D. NUTS Working pressure by rules 187.8# Material of stays S Area at smallest part 397"  
Area supported by each stay 196" Working pressure by rules 211# Material of Front plates at bottom S Thickness 3/4" Material of Lower back plate S Thickness 3/4" Greatest pitch of stays 12 1/4"x7 1/4" Working pressure of plate by rules 302# Diameter of tubes 2 3/4"  
Pitch of tubes 4"x3 3/4" Material of tube plates S Thickness: Front 3/4" Back 3/4" Mean pitch of stays 11 1/4"x8" Pitch across wide water spaces 12 3/4" Working pressures by rules 279# Girders to Chamber tops: Material S Depth and thickness of girder at centre 10"x5 1/8" Length as per rule 33" Distance apart 7" Number and pitch of Stays in each 4 @ 7"  
Working pressure by rules 236# Steam dome: description of joint to shell Yes % 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 Yes Date of Approval of Plan 1921 Tested by Hydraulic Pressure to 1921  
Date of Test 1921 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler 1921  
Diameter of Safety Valve 1921 Pressure to which each is adjusted 1921 Is Easing Gear fitted 1921  
The foregoing is a correct description,  
The Federal Shipbuilding Co., H.W. Smith, Ch. Engr. Manufacturer.

Dates of Survey During progress of work in shops - - Is the approved plan of boiler forwarded herewith 1921  
while building During erection on board vessel - - Total No. of visits 1921

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
The above donkey boiler has been constructed under Special Survey in accordance with the approved plan. The material & workmanship employed in its manufacture, so far as can be seen are sound and good, and proved satisfactory under test. It is eligible, in my opinion to the notation + L.M.C. 6-21.  
Survey Fee ... When applied for, 1921  
Travelling Expenses (if any) ... When received, 1921  
Committee's Minute New York JUN 28 1921  
Assigned See N.Y. 20474  
J. Flockhart, Engineer-Surveyor to Lloyd's Register of Shipping.