

REPORT ON BOILERS.

No. 20474
JUL 12 1921

Received at London Office

Date of writing Report 7th 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. (Number of Visits) 1 Gross 10396.61 Tons Net 7725.

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" Mean dia. of boilers 10'-11" Length 10'-10 1/2"

Material of shell plates S Thickness 1" Range of tensile strength 268 to 324 lbs 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" x 12" Size of compensating ring 34" x 30" No. and Description of Furnaces in each boiler 2 Morrison Material S Outside diameter 43 1/6" Length of plain part 17' 3/2" Thickness of plates crown 17/32" bottom 17/32"

Description of longitudinal joint Welded No. of strengthening rings 1 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" x 7" Back 7 1/4" x 7"

Top 7" x 7" If stays are fitted with nuts or riveted heads Top NUTS Rivetted Working pressure by rules T=276# S=196# B=240# Material of stays S Area at smallest part 1.52 sq in Area supported by each stay 49 sq in Working pressure by rules T=248# S=248# B=240# End plates in steam space: Material S Thickness 29/32"

Pitch of stays 14" x 14" How are stays secured D. NUTS Working pressure by rules 187.8# Material of stays S Area at smallest part 3.97 sq in

Area supported by each stay 196 sq in 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 3/4" x 7 1/4" Working pressure of plate by rules 302# Diameter of tubes 2 3/4"

Pitch of tubes 4" x 3 3/4" Material of tube plates S Thickness: Front 3/4" Back 3/4" Mean pitch of stays 11 1/4" x 8" 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" x 5 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 100

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 _____ 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,
The Federal Shipbuilding Co., R. A. Smith, Ch. Engr. 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.)

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, 191

Travelling Expenses (if any) £ : : When received, 191

Committee's Minute New York JUN 28 1921

Assigned See N York 20474

J. Flockhart
Engineer Surveyor to Lloyd's Register of Shipping.

