

REC'D NEW YORK JUN 14 1921

REPORT ON BOILERS.

See Sfo. 1st E. Rpt. No. 3552.

No. 621

WED. 6 JUL. 1921

Received at London Office

Report Feb. 28 1921 When handed in at Local Office Feb. 28 1921 Port of Portland, Oregon.

Survey held at Portland, Oregon. Date, First Survey Jan. 3, 1921 Last Survey Feb. 11 1921.

On the Union Construction Co.'s hull No. 15

Built at By whom built When built
Made at Portland, Oregon By whom made Willamette Iron & Steel Works When made 1921.
Horse Power Owners Port belonging to

TUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel Illinois Steel Co.

record) Total Heating Surface of Boilers 8451 Is forced draft fitted No. and Description of
Single Ended Scotch Working Pressure 180 Tested by hydraulic pressure to 320 Date of test Feb. 7, 9, & 11 '21.

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of
Area of each valve Pressure to which they are adjusted

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler
Distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 15'-6" Length 11'-7"

of shell plates Steel Thickness 1-5/16" Range of tensile strength 62720 to 71680 Are the shell plates welded or flanged Hds. Flanged
riveting: cir. seams D.R. long. seams Double Butt Diameter of rivet holes in long. seams 1-7/16" Pitch of rivets 9 1/2 - 4 1/2

plates or width of butt straps 20" Per centages of strength of longitudinal joint rivets 96.81% Working pressure of shell by plate 84.87%

Size of manhole in shell 12"x16" Size of compensating ring No. and Description of Furnaces in each
Material Steel Outside diameter 49-3/16" Length of plain part top Thickness of plates 19/32" bottom

No. of strengthening rings Working pressure of furnace by the rules 192 Combustion chamber
Material Steel Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 25/32" Pitch of stays to ditto: Sides 7 1/2 x 8 1/2 Back 7 1/2 x 8 1/2

If stays are fitted with nuts or riveted heads Nuts & R.H. Working pressure by rules 195 Material of stays Steel Area at
Area supported by each stay 65.87 Working pressure by rules 180 End plates in steam space: Material Steel Thickness 1-5/16"

How are stays secured Double Nuts Working pressure by rules 187 Material of stays Steel Area at smallest part 7.67
Supported by each stay 408.5 Working pressure by rules 195 Material of Front plates at bottom Steel Thickness 3/4 Material of

plate Steel Thickness 7/8 Greatest pitch of stays 13-5/8 Working pressure of plate by rules 205 Diameter of tubes 2 1/2
Vert. 3 3/8
Hor. 3-7/8 Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 9 1/2" Pitch across wide

Working pressures by rules 195 lbs. Girders to Chamber tops: Material Steel Depth and thickness of
Centre 3/4"x11" Length as per rule 34" Distance apart 10 1/2" Number and pitch of Stays in each 3-8 1/2"

pressure by rules 203 Steam dome: description of joint to shell % of strength of joint
Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Working pressure of shell by rules Crown plates Thickness How stayed

EATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

CAL DONKEY BOILER— No. Description Manufacturers of steel

By whom made When made Where fixed Working pressure

draulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

y valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can

donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

f furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

f water tubes

The foregoing is a correct description,

WILLAMETTE IRON & STEEL WORKS Manufacturer.

E. C. Pape

During progress of work in shops - - Jan. 3, 5, 7, 10, 12, 28, 31. Feb. 3, 4, 5, 7, 9, 11.
During erection on board vessel - - -
Total No. of visits 13.

Is the approved plan of main boiler forwarded herewith

donkey

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

The three Main Boilers have been constructed under Special Survey in accordance with the Rules at Portland, Oregon and to the approved plan. The material, tested by the Society Surveyors, is sound and good and the workmanship good. The Boilers have been forwarded to San Francisco to be fitted on board the Union Construction Co.'s hull No. 15.

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £
2/5ths Special LMC. fee to be credited Portland.
Donkey Boiler Fee .. £
Travelling Expenses (if any) £

When applied for,19.....
When received,19.....

Committee's Minute

Assigned

See S. 70 3552

J. H. Bates

Engineer Surveyor to Lloyd's Register of Shipping

New York JUN 21 1921
FRI. AUG. 26 1921
FRI. SEP. 8 1922

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