

# REPORT ON BOILERS.

No. 1028

Received at London Office

SAT. 13 AUG. 1921

pt. 5.

REC'D NEW YORK JUL 25 1921  
 Date of writing Report March 18 1921 When handed in at Local Office March 17 1921 Port of Seattle, Wash. U.S.A.  
 No. in Survey held at Seattle Date, First Survey January 15<sup>th</sup> Last Survey February 15<sup>th</sup> 1921  
 Reg. Book. on the One Donkey Boiler for the Union Construction Co. Oakland, Cal. Hull No. 21 Tons 21  
 Master                      Built at                      By whom built                      When built                       
 Engines made at                      By whom made                      When made                       
 Boilers made at Seattle By whom made Commercial Boiler Works When made 1921  
 Registered Horse Power                      Owners                      Port belonging to                     

## MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel Luke's Iron & Steel Co.

Letter for record New York Nov. 3. 1920 Total Heating Surface of Boilers 1304 sq ft Is forced draft fitted                      No. and Description of Boilers One Scotch Marine Working Pressure 120 lbs Tested by hydraulic pressure to 180 lbs Date of test Feb. 15-1921  
 No. of Certificate 49 Can each boiler be worked separately                      Area of fire grate in each boiler                      No. and Description of safety valves to each boiler                      Area of each valve                      Pressure to which they are adjusted                       
 Are they fitted with easing gear                      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 11'-3 7/8" Length 10'-7 3/4"  
 Material of shell plates Steel Thickness 7/16" Range of tensile strength 62,720 lbs Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams Double Lap long. seams Triple Butt Diameter of rivet holes in long. seams 4 7/8" Pitch of rivets 6"  
Top of plates or width of butt straps 14" Per centages of strength of longitudinal joint 92.9 Working pressure of shell by rules 86.3  
 Size of manhole in shell 12" x 16" Size of compensating ring 28" x 30" x 7/8" No. and Description of Furnaces in each boiler Two. Monson Material Steel Outside diameter 40" Length of plain part                      Thickness of plates 7/16"  
 Description of longitudinal joint Welded No. of strengthening rings — Working pressure of furnace by the rules 157 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 5/8" Top 1/2" Bottom 5/8" Pitch of stays to ditto: Sides 7" x 7 1/2" Back 7" x 7 1/2"  
 Top 7" x 7 1/2" If stays are fitted with nuts or riveted heads Top - Nuts Working pressure by rules 121.6 Material of stays Iron Area at smallest part 1.227 Area supported by each stay 57.23 Working pressure by rules 121.6 End plates in steam space: Material Steel Thickness 3/4"  
 Pitch of stays 13 1/2" x 14" How are stays secured Double Nuts Working pressure by rules 133 Material of stays Steel Area at smallest part 2.76  
 Area supported by each stay 189" Working pressure by rules 133 Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 10" x 18" Working pressure of plate by rules 124 Diameter of tubes 2 3/4"  
 Pitch of tubes 3 3/4" x 3 7/8" Material of tube plates Steel Thickness: Front 3/4" Back 5/8" Mean pitch of stays 9.5" Pitch across wide water spaces 13.5" Working pressures by rules 124 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x (5/8" + 5/8") Length as per rule 30 Distance apart 7" Number and pitch of Stays in each 3-7" x 7 1/2"  
 Working pressure by rules 180 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                     

## UPERHEATER.

Type                      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                     

VERTICAL DONKEY BOILER— No.                      Description                      Manufacturers of steel                       
 Made at                      By whom made                      When made                      Where fixed                      Working pressure                       
 Tested by hydraulic pressure to                      Date of test                      No. of Certificate                      Fire grate area                      Description of safety valves                       
 No. of safety valves                      Area of each                      Pressure to which they are adjusted                      If fitted with easing gear                      If steam from main boilers can enter the donkey boiler                       
 Dia. of donkey boiler                      Length                      Material of shell plates                      Thickness                      Range of tensile strength                       
 Descrip. of riveting long. seams                      Dia. of rivet holes                      Whether punched or drilled                      Pitch of rivets                       
 Top of plating                      Per centage of strength of joint                      Rivets                      Working pressure of shell by rules                      Thickness of shell crown plates                       
 Radius of do.                      No. of Stays to do.                      Dia. of stays                      Diameter of furnace Top                      Bottom                      Length of furnace                       
 Thickness of furnace plates                      Description of joint                      Working pressure of furnace by rules                      Thickness of furnace crown plates                       
 Radius of do.                      Stayed by                      Diameter of uptake                      Thickness of uptake plates                       
 Thickness of water tubes                     

The foregoing is a correct description,  
Commercial Boiler Works Manufacturer.

Dates                      During progress of work in shops Jan. 15-24-29 Feb 5-11-15  
 Survey while building                      During erection on board vessel                       
 Total No. of visits Shop 6

Is the approved plan of main boiler forwarded herewith                       
 " " " donkey " "



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

This Donkey Boiler has been built under special survey and in accordance with the approved plan. The material tested as required by the rules of the Society and the workmanship of good quality, tested by hydraulic pressure and found tight and sound. When installed in a vessel classed in Lloyd's Register of Shipping will be eligible, in my opinion, to be noted in the Register Book.

Marks and Number

Nº 264  
LLOYD'S TEST  
T.P. 180 7/8  
W.P. 120 4  
J.F. 15-2-21

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 .. £	:	:	When applied for,
Special Survey .. \$ 43.46	:	:	March 19 1921
Donkey Boiler Fee .. £	:	:	When received,
Travelling Expenses (if any) £	:	:	19...

*To be paid to Seattle Surveyors by Commercial Boiler Works.*

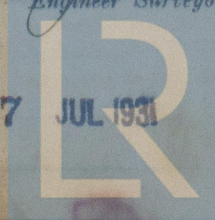
Committee's Minute

Assigned

New York JUL 26 1921

See S. 70.3569

James Fowler  
Engineer Surveyor to Lloyd's Register of Shipping



Lloyd's Register  
Foundation