

# REPORT ON BOILERS.

See Sfo 1st E. Rpt No. 3552.

No. 621

WED. 46 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. 12, 1921

on the Union Construction Co.'s hull No. 15 (Number of Visits 9) Gross Tons Net

When built Built at By whom built When made

By whom made Portland, Oregon By whom made Willamette Iron & Steel Works When made

Port belonging to Horse Power Owners

TUBULAR BOILERS ~~MAIN, AUXILIARY~~ DONKEY. Manufacturers of Steel Midvale Steel Co.

Total Heating Surface of Boilers 1272 Is forced draft fitted No. and Description of Feb. 12, 1921

Single Ended Scotch Working Pressure 120 Tested by hydraulic pressure to 230 Date of test 1921

Area of fire grate in each boiler No. and Description of

Can each boiler be worked separately 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

Mean dia. of boilers 11'-3" Length 10'-7 3/4"

Are the shell plates welded or flanged Hds. Flanged

Range of tensile strength 71680

Thickness 11/16" Triple Riveted

long. seams Double Butt Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 7 1/2" & 3 3/4"

Per centages of strength of longitudinal joint rivets 159.7% Working pressure of shell by

Size of manhole in shell 12x16 Size of compensating ring 28 3/8" x 32 5/8" No. and Description of Furnaces in each

Material Steel Outside diameter 39 7/8" Length of plain part top 7/16" Thickness of plates crown 7/16" bottom

No. of strengthening rings Working pressure of furnace by the rules 157.8 Combustion chamber

Material Steel Thickness: Sides 1/2" Back 5/8" Top 1/2" Bottom 13/16" Pitch of stays to ditto: Sides 6 1/2" x 8" Back 8 1/2" x 9"

Working pressure by rules 120.4 Material of stays Steel Area at

Area supported by each stay 76.5 Working pressure by rules 143 End plates in steam space: Material Steel Thickness 3/4"

How are stays secured Double Nuts Working pressure by rules 121.8 Material of stays Steel Area at smallest part 4.095

Working pressure by rules 217 Material of Front plates at bottom Steel Thickness 3/4" Material of

Greatest pitch of stays 12 1/4" Working pressure of plate by rules 124.6 Diameter of tubes 2 1/4"

Material of tube plates Steel Thickness: Front 3/4" Back 9/16" Mean pitch of stays 9 1/2" x 9 1/2" Pitch across wide

Working pressures by rules 121.6 Girders to Chamber tops: Material Steel Depth and thickness of

Length as per rule 30" Distance apart 7 1/2" Number and pitch of Stays in each 3-8"

% of strength of joint

Steam dome: description of joint to shell

Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Working pressure of shell by rules Crown plates Thickness How stayed

Tested by Hydraulic Pressure to

FEATER. Type Date of Approval of Plan

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted Is Easing Gear fitted

Safety Valve

CAL DONKEY BOILER No. Description Manufacturers of steel

By whom made When made Where fixed Working pressure

hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety 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 Plates 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

of 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

of water tubes

The foregoing is a correct description, WILLAMETTE IRON & STEEL WKS. Manufacturer.

During progress of work in shops - - Jan. 28, 31. Feb. 3, 4, 5, 7, 9, 11, 12.

During erection on board vessel - - -

Total No. of visits 9

Is the approved plan of main boiler forwarded herewith No

" " " donkey " " No

Lloyd's Register of Shipping

tes

of water tubes

of furnace plates

No. of Stays to do.

ating

Donkey boiler

ty valves

hydraulic pressure to

By whom made

CAL DONKEY BOILER

Safety Valve

st

FEATER.

rivets

pressure by rules

centre

ices

tubes

ck plate

ported by each stay

stays

part

x 8"

Material

Morrison

Size of manhole in shell

plates or width of butt straps

of riveting: cir. seams

of shell plates

distance between boilers or uptakes and bunkers or woodwork

fitted with easing gear

es to each boiler

ertificate

Single Ended Scotch

record

TUBULAR BOILERS

When made

By whom built

Survey held at

Report

Feb. 28

1921

REC'D NEW YORK

JUN 14 1921

of water tubes

of furnace plates

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

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

Rpt. 13.

REPORT

Port of SAN

No. in on the  
Reg. Book Built

Owners Anglo Sa  
Yard No. 15

## DESCRIPTION OF

One 12½ K.W.

One 7 K.W.

Capacity of Dynamo

Where is Dynamo

Position of Main S

Positions of auxili

one in engin

If fuses are fitted

circuits Yes

If cessel is wired

Are the fuses of

Are all fuses fitted

are permanent

Are all switches an

Total number of li

53

A 79

B 26

C 66

D 20

E 5

2 Mast, hee

2 Sic

4

If arc lights, wha

Where are the s

## DESCRIPTION

Main cable carryi

Branch cables ca

Branch cables ca

Leads to lamps ca

Cargo light cables

## DESCRIPTION

The co

ness-- she

and in coa

Joints in cables,

ed by rubb

Are all the joint

positions, n

Are there any j

How are the ca

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 .. £  
Special .. £  
Donkey Boiler Fee .. £  
Travelling Expenses (if any) .. £

Committee's Minute

New York JUN 21 1921

FRI. AUG. 26 1921

Assigned

See S. 70. 3552

FRI. SEP. 8 1922

J. W. Yates  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation