

REPORT ON MACHINERY.

No. _____

REC'D NEW YORK April 4, 1917

Port of SEATTLE.

Received at London Office TUE. 24. APR. 1917

No. in Survey held at _____ Date, first Survey _____ Last Survey 19

g. Book. _____ (Number of Visits _____)

on the s/s "THORDIS", Moore & Scott Iron Works' Hull No. 110 Tons { Gross 4767 Net 3523

Master O. Jensen Built at San Francisco, By whom built Moore & Scott Iron Works When built 1917

Engines made at Schenectady, NY. By whom made General Electric Co. when made 1917

Boilers made at Seattle By whom made Commercial Boiler Works when made 1916

Horse Power 2400 Owners Aktieselskabet "Thelma" Port belonging to Grimstad, Norway.

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

GINES, &c.—Description of Engines

No. of Cylinders _____ No. of Cranks _____

Length of Stroke _____ Revs. per minute _____ Dia. of Screw shaft _____

Material of screw shaft _____

Is the after end of the liner made water tight _____

Length of stern bush _____

Dia. of Crank shaft journals _____ Dia. of Crank pin _____ Size of Crank webs _____ Dia. of thrust shaft under _____

No. of Blades _____ State whether moveable _____ Total surface _____

Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____

Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____

In Holds, &c. _____

Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine room & size _____

Are the roses in Engine room always accessible _____ Are the sluices on Engine room bulkheads always accessible _____

Are they Valves or Cocks _____

Are the Discharge Pipes above or below the deep water line _____

Are the Blow Off Cocks fitted with a spigot and brass covering plate _____

How are they protected _____

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges _____

of Stern Tube _____ Screw shaft and Propeller _____

Is it fitted with a watertight door _____ worked from _____

Manufacturers of Steel Lukens Iron & Steel Co. Coatesville Pa

Is Forced Draft fitted no No. and Description of Boilers 3 Scotch Marine

Working Pressure 210 Tested by hydraulic pressure to 315 lbs Date of test November 16-1916 No. of Certificate 26

Area of fire grate in each boiler _____ No. and Description of Safety Valves to _____

Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____

Mean dia. of boilers 14' 10 1/2" Length 11' 0" Material of shell plates Steel

Range of tensile strength 28 to 32 Tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double-Lap

Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10" Lap of plates on width of butt straps 22 3/8"

Working pressure of shell by rules 228.8 Lbs Size of manhole in shell 12" x 16"

No. and Description of Furnaces in each boiler 3 Harrison Corrugated Material Steel Outside diameter 48 7/8"

Thickness of plates _____ Description of longitudinal joint _____ welded No. of strengthening rings _____

Working pressure of furnace by the rules 222 Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 5/16"

Working pressure by rules 214

Material of stays Iron Diameter at smallest part 1.76" Area supported by each stay 56.25" Working pressure by rules 234 End plates in steam space:

Material Steel Thickness 1 1/4" Pitch of stays 16 3/8" x 17 1/2" How are stays secured Double Nuts Working pressure by rules 243 Material of stays Steel

Working pressure by rules 277 Material of Front plates at bottom Steel

Material of Lower back plate Steel Thickness 3/16" Greatest pitch of stays 12" Working pressure of plate by rules 358

Material of tube plates Steel Thickness: Front 13/16" Back 13/16" Mean pitch of stays 10 5/8"

Working pressures by rules 268 lbs Girders to Chamber tops: Material Steel Depth and

Working pressure by rules 292 lbs Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked

_____ Diam. of rivet _____

_____ Material of flue plates _____ Thickness _____

_____ End plates: Thickness _____ How stayed _____

_____ Are they fitted with easing gear _____

2610-1611K

VERTICAL DONKEY BOILER— *Manufacturers of Steel*

No. _____ Description _____

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 _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

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 _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

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 _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
Amusement Works
J. H. Joff Boiler Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *Sep. 23, 29, Oct 2-7-17-24-30, Nov. 1-6-11-14 16, 1916 (12 Visits)*

{ During erection on board vessel - - }

Total No. of visits _____

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____

Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____

Material of Steam Pipes _____ Test pressure _____

General Remarks (State quality of workmanship, opinions as to class, &c. *These boilers have been constructed in special survey in accordance with the approved plans. The material and workmanship are both of good quality and on completion were tested by hydraulic pressure to 315 and found tight and sound. The boilers have been forwarded to San Francisco installing on Moore & Scott Iron Works vessel No. 110. To complete the survey the boiler to be installed and secured in the vessel, all mountings to be examined and fitted and all safety valves adjusted under steam at 210 lbs working pressure.*

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 . . . £ *3.00 due Seattle* : : _____

Donkey Boiler Fee . . . £ _____ : : _____

Travelling Expenses (if any) £ : : _____

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping
James Fowler

Committee's Minute **New York APR 5 1917**
 Assigned *See S. To Rpt. 2476*

