

REPORT ON MACHINERY.

No.

Port of SEATTLE.

REC'D NEW YORK

April 4, 1917

TUE. 24 APR. 1917

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

g. Book. on the s/s "T H O R D I S", Moore & Scott Iron Works' Hull No. 110

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

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

m. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

GINES, &c.—Description of Engines No. of Cylinders No. of Cranks

a. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Material of screw shaft

the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight

the propeller boss If the liner is in more than one length are the joints burned If the liner does not fit tightly at the part

between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive If two

are fitted, is the shaft lapped or protected between the liners Length of stern bush

a. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under

lars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface

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

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

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

Engine Room In Holds, &c.

of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

all connections with the sea direct on the skin of the ship Are they Valves or Cocks

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

that pipes are carried through the bunkers 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

ates of examination of completion of fitting of Sea Connections of Stern Tube Screw shaft and Propeller

the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

ILERS, &c.—(Letter for record) Manufacturers of Steel Lukens Iron & Steel Co. Coatesville Pa

total Heating Surface of Boilers 7509 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

in each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

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

esallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 14' 10 1/2" Length 11' 0" Material of shell plates Steel

ickness 1/2" Range of tensile strength 28 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double-Lap

g. seams Triple-Butt 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"

percentages of strength of longitudinal joint rivets 95% Working pressure of shell by rules 228.8 lbs Size of manhole in shell 12" x 16"

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

ngth of plain part top Thickness of plates crown 3/4" Description of longitudinal joint welded No. of strengthening rings

orking 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 9/16"

ch of stays to ditto: Sides 7" x 8" Back 7 1/4" x 7 1/4" Top 7" x 8" If stays are fitted with nuts or riveted heads Sides & Back Riveted Working pressure by rules 214

aterial of stays Iron Diameter at smallest part 1 7/16" Area supported by each stay 56.25" Working pressure by rules 234 End plates in steam space:

aterial 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

iameter at smallest part 7.66" Area supported by each stay 286.5" Working pressure by rules 277 Material of Front plates at bottom Steel

ickness 3/16" Material of Lower back plate Steel Thickness 3/16" + 1/2" Greatest pitch of stays 12" Working pressure of plate by rules 353

iameter of tubes 5" Pitch of tubes 4" x 4 1/2" Material of tube plates Steel Thickness: Front 13/16" Back 13/16" Mean pitch of stays 10 1/8"

ch across wide water spaces 13" Working pressures by rules 268 lbs Girders to Chamber tops: Material Steel Depth and

ickness of girder at centre 11" x 1 1/2" Length as per rule 34" Distance apart 8" Number and pitch of stays in each 4 - 7"

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

urately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

orking pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

Lloyd's Register Foundation

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,
Chas. H. J. J. J. 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 _____

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 accordance with the approved plans. The material and workmanship are both of good quality and on completion were tested by hydraulic pressure to 315 lbs and found tight and sound. The boilers have been forwarded to San Francisco installing on Moore & Scott Iron Works vessel N. 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.

The amount of Entry Fee. £ : : When applied for. _____

Special .. £ 3.00 due _____

Donkey Boiler Fee .. £ 1.00 _____

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

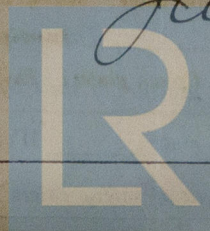
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute

New York APR 5 1917

Assigned

See S. F. Rpt. 2476



Lloyd's Register Foundation