

REC'D NEW YORK FEB 14 1921

Rpt. 4.

REPORT ON MACHINERY.

No. 4104

THU. 3 MAR. 1921

Date of writing Report Feb 4 1921 When handed in at Local Office Feb 5 1921 Port of Philadelphia
No. in Survey held at Chester Date, First Survey 2nd Sept- 1921 Last Survey 4 February 1921
Reg. Book. on the New S.S. Joseph M. Rudahy (Number of Visits)
Master G. W. Stanton Built at Chester By whom built Sun Shipbuilding Co Tons { Gross 7052
Engines made at Chester By whom made Sun Shipbuilding Co when made 1921 Net 5072
Boilers made at Chester By whom made Sun Shipbuilding Co when made 1921
Registered Horse Power Owners Sinclair Navigation Company Port belonging to New York
Nom. Horse Power as per Section 28 612 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27 x 45 1/2 x 76 Length of Stroke 51 Revs. per minute 72 Dia. of Screw shaft as per rule 15.45 Material of Steel
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
in the propeller boss Yes If the liner is in more than one length are the joints burned Yes 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 Yes If two
liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5' 4"
Dia. of Tunnel shaft as per rule 13.96 Dia. of Crank shaft journals as per rule 14.66 Dia. of Crank pin 15.5 Size of Crank webs 10 3/4 x 5 1/2 Dia. of thrust shaft under
collars 15 Dia. of screw 18 Pitch of Screw 16.6 No. of Blades 4 State whether moveable Yes Total surface 98
No. of Feed pumps 2 Diameter of ditto over Stroke over Can one be overhauled while the other is at work Yes
No. of Bilge pumps over Diameter of ditto over Stroke over Can one be overhauled while the other is at work Yes
No. of Donkey Engines over Sizes of Pumps over No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 20 3/2 x 10 5 In Hold, &c. Forehold 20 3/2 Cargo pump room 20 2 1/2
In pump room 20 3 1/2
No. of Bilge Injections 1 sizes 10 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line above
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
What pipes are carried through the bunkers None How are they protected Yes
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record Yes) Manufacturers of Steel Lukens Steel & Iron Co
Total Heating Surface of Boilers 9195 Is Forced Draft fitted Yes No. and Description of Boilers 3 S E Scotch
Working Pressure 190 Tested by hydraulic pressure to 285 Date of test over No. of Certificate over
Can each boiler be worked separately Yes Area of fire grate in each boiler 69 No. and Description of Safety Valves to
each boiler 3 1/2 Twin Area of each valve 9.62 Pressure to which they are adjusted 190 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 20 Mean dia. of boilers 5.11 1/2 Length 2.0 3/4 Material of shell plates Steel
Thickness 1 1/32 Range of tensile strength 6000 to 7000 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DRL
long. seams TRDBS Diameter of rivet holes in long. seams 1 9/16 Pitch of rivets 9 1/6 Lap of plates or width of butt straps 22 3/4
Per centages of strength of longitudinal joint 93.7 Working pressure of shell by rules 208 Size of manhole in shell 12 x 16
Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Union Material Steel Outside diameter 52 1/4
Length of plain part top Thickness of plates crown 5/8 Description of longitudinal joint Weld No. of strengthening rings Yes
Working pressure of furnace by the rules 192.7 Combustion chamber plates: Material Steel Thickness: Sides 2 1/32 Back 3/4 Top 2 1/32 Bottom 1
Pitch of stays to ditto: Sides 8 1/2 x 6 1/2 Back 8 3/4 x 8 3/2 Top 8 3/4 x 8 1/2 If stays are fitted with nuts or riveted heads Both Working pressure by rules 190-9
Material of stays WI Area at smallest part 1.997 Area supported by each stay 75.465 Working pressure by rules 198 End plates in steam space:
Material Steel Thickness 1 1/8 Pitch of stays 16 1/2 x 16 How are stays secured D nut Working pressure by rules 210 Material of stays Steel
Area at smallest part 6-2126 Area supported by each stay 270 Working pressure by rules 239 Material of Front plates at bottom Steel
Thickness 1 Material of Lower back plate Steel Thickness 1 1/16 Greatest pitch of stays 13 Working pressure of plate by rules 248
Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 1/2 Material of tube plates Steel Thickness: Front 1 Back 3/4 Mean pitch of stays 9
Pitch across wide water spaces 13 Working pressures by rules 212 Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 10 1/2 x 2 Length as per rule 3.4 Distance apart 8 3/8 Number and pitch of stays in each 4 @ 8 1/2
Working pressure by rules 247 Steam dome: description of joint to shell Yes % of strength of joint Yes
Diameter over Thickness of shell plates over Material over Description of longitudinal joint over Diam. of rivet holes over
Pitch of rivets over Working pressure of shell by rules over Crown plates over Thickness over How stayed over
UPPER HEATER. Type over Date of Approval of Plan over Tested by Hydraulic Pressure to over
Date of Test over Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler over
Diameter of Safety Valve over Pressure to which each is adjusted over Is Easing Gear fitted over

W1145-0116

Lloyd's Register Foundation

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Connecting rod tops and bottom end bolts and nuts
2 Main bearing bolts: 1 Propeller shaft: 2 Propeller blades: 1 eccentric rod: 1 set of
Piston springs for each piston: 1 set of top and bottom end braces: 1 set of valves
for feed bilge pumps: 1 bucket and rod for circulating pump: a quantity of
assorted bolts nuts of various sizes: 1 set of coupling bolts: plates of iron and
mild steel of various sizes

The foregoing is a correct description,

Robert Haig

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1920 Sep. 2, 17, Oct. 4, 6, 8, 12, 14, 26, Nov. 3, 5, 8, 11, 24, 27, 29, Dec. 8, 13, 14, 16, 17, 18, 20, 21, 28, 30
During erection on board vessel --- 1921 Jan. 3, 4, 6, 11, 12, 19, 21, 26, 28, Feb. 2, 4
Total No. of visits 36

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 29-11-20 Slides 4-1-21 Covers 29-11-20 Pistons 3-1-21 Rods 3-1-21
Connecting rods 20-12-20 Crank shaft 13-12-20 Thrust shaft 18-12-20 Tunnel shafts 18-12-20 Screw shaft 17-12-20 Propeller 21-12-20
Stern tube 17-12-20 Steam pipes tested 19-1-21 Engine and boiler seatings 6-1-21 Engines holding down bolts 26-1-21
Completion of pumping arrangements 28-1-21 Boilers fixed 11-1-21 Engines tried under steam 28-1-21
Completion of fitting sea connections 6-1-21 Stern tube 6-1-21 Screw shaft and propeller 6-1-21
Main boiler safety valves adjusted 28-1-21 Thickness of adjusting washers Lock nuts
Material of Crank shaft Steel Identification Mark on Do. FWT Material of Thrust shaft Steel Identification Mark on Do. FWT
Material of Tunnel shafts Steel Identification Marks on Do. FWT Material of Screw shafts Steel Identification Marks on Do. RS
Material of Steam Pipes Steel Test pressure 710
Is an installation fitted for burning oil fuel Yes Is the flash point of the oil to be used over 150°F. Yes
Have the requirements of Section 49 of the Rules been complied with Yes
Is this machinery duplicate of a previous case Yes If so, state name of vessel "Samuel L Fuller"

General Remarks (State quality of workmanship, opinions as to class, &c.)

Pumps. 2 Radjets: Evaporator 5x4 1/4 x 5: Sanitary 6x5 1/2 x 6: General service 6x5 1/2 x 6 Bilge 6x5 1/2 x 6
Aux Condenser 12x14x14x12: Donkey 14x12 1/2 x 12: 2 Feed 12x8x24: Condenser 7 1/2 x 7 x 10: Transfer 7 1/2 x 6 x 10
Inc pump room bilge 6x5 1/4 x 6: Cargo 2 of 20x14x24 Cargo pump room bilge 6x5 1/4 x 6: Fuel main 5 1/4 x 4 1/4 x 5

The machinery of this vessel has been built under Special Survey, and in accordance with the approved plans. The workmanship and materials all good.
It is submitted that the vessel be eligible for a record of + LMC 2-21 and to have notation fitted for oil fuel 2-21 Flash point above 150°F. in the Register Book

It is submitted that this vessel is eligible for THE RECORD + LMC 2.21. F.D. CL.
Fitted for oil fuel 2.21, F.P. above 150°F.

J. Adamson
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £15.00 :
Special ... £253.00 :
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £20.00 :

When applied for,

When received,

Committee's Minute New York FEB 15 1921

Assigned

+ L.M.C. 2.21



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