

REC'D NEW YORK AUG 7 1921

Rpt. 4.

REPORT ON MACHINERY.

No. 4213

MON. AUG. 22 1921

Date of writing Report 25 July 1921 When handed in at Local Office 29 July 1921 Port of Philadelphia

No. in Survey held at Chester Pa Date, First Survey 10-12-20 Last Survey 25 July 1921
Reg. Book. on the New S.S. "J. N. PEW" (Number of Visits 46)

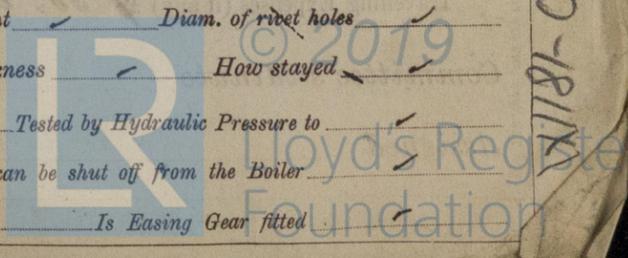
Master F. Okelmau Built at Chester Pa By whom built Sun Shipbuilding Co Tons { Gross 9074
Engines made at Chester Pa By whom made Sun Shipbuilding Co when made 1921 Net 6473
Boilers made at Chester Pa By whom made Sun Shipbuilding Co when made 1921
Registered Horse Power _____ Owners Sun Company Port belonging to Philadelphia
Nom. Horse Power as per Section 28 620 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 24" 45 1/2" 76" Length of Stroke 51" Revs. per minute 72 Dia. of Screw shaft as per rule 15 1/2" 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 _____ Length of stern bush 6' 0"
Dia. of Tunnel shaft as per rule 14.2" Dia. of Crank shaft journals as per rule 14.9" Dia. of Crank pin 15 1/2" Size of Crank webs _____ Dia. of thrust shaft under
collars 15 1/4" Dia. of screw 18.2" Pitch of Screw 17" No. of Blades 4 State whether moceable Yes Total surface 89.4 sq ft
No. of Feed pumps 2 Diameter of ditto one Stroke one Can one be overhauled while the other is at work Yes
No. of Bilge pumps one Diameter of ditto one Stroke one Can one be overhauled while the other is at work Yes
No. of Donkey Engines one Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____
In Engine Room Sirom 5 1/2 3 1/2 10 5" In Holds, &c. Fore hold 10 3" Main pump room 2 1/2 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
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 _____
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 _____

BOILERS, &c.—(Letter for record Yes) Manufacturers of Steel Lukens Steel & Iron Co
Total Heating Surface of Boilers 9195 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 S.E. SCOTCH
Working Pressure 200 Tested by hydraulic pressure to 300 Date of test 2-2-21 No. of Certificate 507
Can each boiler be worked separately Yes Area of fire grate in each boiler 66 sq ft No. and Description of Safety Valves to
each boiler 3 1/2" Lwin Area of each valve 9.62 Pressure to which they are adjusted 200 Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15.11 3/32" Length 12.0 3/8" Material of shell plates Steel
Thickness 1 1/32" Range of tensile strength 60000 to 70000 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 1/16" Lap of plates or width of butt straps 23 3/4"
Per centages of strength of longitudinal joint rivets 90% plate 84.2% Working pressure of shell by rules 214 Size of manhole in shell 12 x 16
Size of compensating ring flange No. and Description of Furnaces in each boiler 3 Sirom Material Steel Outside diameter 52 9/16"
Length of plain part top _____ bottom _____ Thickness of plates crown 2 1/32" bottom 1 1/32" Description of longitudinal joint Weld No. of strengthening rings 1
Working pressure of furnace by the rules 204 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 Back 8 1/2 x 8 Top 8 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Both Working pressure by rules 203
Material of stays W1 Area at smallest part 1.997 Area supported by each stay 71.187 Working pressure by rules 210 End plates in steam space:
Material Steel Thickness 1 1/8" Pitch of stays 16 1/8 x 16 How are stays secured D nuts Working pressure by rules 210 Material of stays Steel
Area at smallest part 6.2126 Area supported by each stay 270 sq in 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 247
Diameter of tubes 2 1/2" Pitch of tubes 3 1/4 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 10" 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 237 Steam dome: description of joint to shell _____ % 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 _____

8600-1811X



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *-*

SPARE GEAR. State the articles supplied: - 1 Propeller shaft. 2. Connecting rod bolts & nuts for top and bottom ends braces: 1 set of coupling bolts: 1 set of piston springs for each piston fitted: 12 follower bolts: 8 valve stem studs: 8 piston rod studs: 1 Relief valve spring for each one fitted: 50 Condenser tubes: 1 Propeller hub and two spare blades: 1 Rod and rotor bucket for circulating pumps: 1 spare eccentric: 1 set of Crank braces: 1 set of Crosshead braces: a quantity of assorted bolts & nuts of various sizes 1 set of bilge relief valves and 2 main bearing bolts.

The foregoing is a correct description,

Wm. H. H. H.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1920. Dec 10. 16. 1921. Jan. 3. 6. 11. 18. 21. 24. 26. 27. 28. 31. Feb. 2. 8. 10. 11. 14. 17. 18. 21. 28. Mar. 6. 7. 12. 13. 14. 15. During erection on board vessel --- 20. 22. 23. Apr. 25. May 2. 6. 10. 25. 27. June. 2. 7. 10. 16. 24. July 5. 11. 18. 21. 25. Total No. of visits 46

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 17-2-21 Slides 11-2-21 Covers 17-2-21 Pistons 21-2-21 Rods 21-2-21 Connecting rods 28-2-21 Crank shaft 8-2-21 Thrust shaft 14-4-21 Tunnel shafts 6-4-21 Screw shaft 6-4-21 Propeller 12-4-21 Stern tube 24-3-21 Steam pipes tested 24.6.21 Engine and boiler seatings 18-4-21 Engines holding down bolts 6-5-21 Completion of pumping arrangements 5-7-21 Boilers fixed 2-5-21 Engines tried under steam 18.7.21 Completion of fitting sea connections 23-4-21 Stern tube 20-4-21 Screw shaft and propeller 20-4-21 Main boiler safety valves adjusted 28-7-21 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. *RS* Material of Tunnel shafts *Steel* Identification Marks on Do. *RS* Material of Screw shafts *Steel* Identification Marks on Do. *EB* Material of Steam Pipes *Steel* Test pressure 700 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 *No* If so, state name of vessel

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

Pumps. Donkey 14x10x12. Fed (2) 12x8x24. Condensate 7 1/4 x 7 x 10 Fresh water 5 1/4 x 4 1/4 x 4 1/4
Aux Condenser. 12x14x14x12. Sanitary 7 1/2 x 6 x 10. Evaporator. 5 1/4 x 4 1/4 x 5. Bilge (2) 7 1/2 x 6 x 10
Fuel oil (2) 6 x 4 x 6. Swd pump room. (2) 6 x 5 1/4 x 6. 10 x 6 x 10 Cargo pumps. (2). 18 x 14 x 24

The Machinery & boilers of this vessel have been built under special survey. The materials and workmanship are all good. The machinery & boilers have been securely fitted on board & proved satisfactory under steam trial.

It is submitted that the vessel be eligible for a record of + LMC 7-21 and to have notation fitted for oil fuel 7-21 flash point above 150°F in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 7.21. FI. CL fitted for Oil Fuel 7.21 FP above 150°F

The amount of Entry Fee ... £ 30.00 : Special £ 530.00 : Donkey Boiler Fee ... £ 250.00 : Travelling Expenses (if any) £ 30.00 : When applied for July 29 1921 When received 1921

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

Committee's Minute New York AUG - 9 1921

MACHINERY CERTIFICATE WRITTEN 8/9/21 (dated 22/8/21)

Assigned

+ LMC - 7.21



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Lloyd's Register Foundation

Rpt. 13.

Port of

No. in Reg. Book

Owners

Yard No.

DESCRIPTION

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Pump

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.