

Rpt. 4.

REPORT ON MACHINERY.

No. 486
JUL 12 1921

Received at London Office

Date of writing Report 16 June 1921 When handed in at Local Office 23 June 1921 Port of Philadelphia
 No. in Survey held at Camden N.J. Date, First Survey 30 June 1920 Last Survey 21 June 1921
 Reg. Book. on the New Steel S.S. "PUENTE" (Number of Visits 66) Gross 6816.79 Tons Net 4245
 Master not appointed Built at Chester Pa By whom built Merchants S.S. Corp. 381 When built 1920
 Engines made at Camden N.J. By whom made New York Shipbuilding Corp. 13988 when made 1920
 Boilers made at Chester Pa By whom made Sun Shipbuilding Company when made 1920
 Registered Horse Power Owners Union Oil Company Port belonging to New York
 Nom. Horse Power as per Section 28 584 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

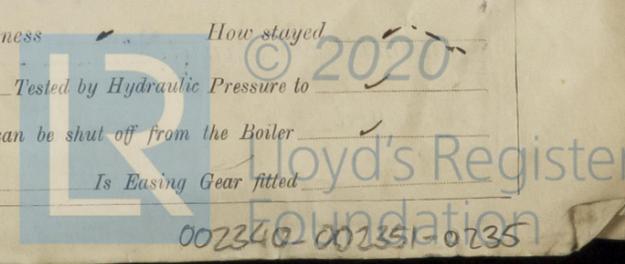
ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 21" x 45" x 45" Length of Stroke 51" Revs. per minute 80 Dia. of Screw shaft as per rule 15.5 Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length 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. 10/4
 Dia. of Tunnel shaft as per rule 11-0 x 8" 11-4 Dia. of Crank shaft journals as per rule 11-7/8 15-12 Dia. of Crank pin 15 3/8 Size of Crank webs 11" x 2 1/2" Dia. of thrust shaft under
 collars 15" Dia. of screw 18" Pitch of Screw 15.9" No. of Blades 4 State whether moceable Yes Total surface 89 sq ft
 No. of Feed pumps Two Diameter of ditto over Stroke over Can one be overhauled while the other is at work Yes
 No. of Bilge pumps Two Diameter of ditto 4 1/2" Stroke 2 1/4" 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 Boiler room 5 @ 3/2" In Holds, &c. Forward cofferdam 1 @ 3/2"
After Cofferdam 2 @ 2 1/2" Bay hold. 2 @ 2 1/2" Forward pump room 1 @ 2 1/2"
 No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Yes 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 worked from

BOILERS, &c.—(Letter for record Yes) Manufacturers of Steel Lukens Steel & Iron Co
 Total Heating Surface of Boilers 8331 Is Forced Draft fitted Yes No. and Description of Boilers 3 S. E. Scotch
 Working Pressure 210 Tested by hydraulic pressure to 315 Date of test 20-8-20 No. of Certificate 475
 Can each boiler be worked separately Yes Area of fire grate in each boiler 61.8 sq ft No. and Description of Safety Valves to
 each boiler 3 1/2 Lever Area of each valve 9.62 sq in Pressure to which they are adjusted 210 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 15.4 7/8 Length 11-5" Material of shell plates Steel
 Thickness 1 7/8" 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 1/16 Pitch of rivets 8 1/16" Lap of plates or width of butt straps 20 3/4"
 Per centages of strength of longitudinal joint rivets 85.5% Working pressure of shell by rules 225 Size of manhole in shell 12 x 16
 plate 83.4% No. and Description of Furnaces in each boiler 3 Ironion Material Steel Outside diameter 49 1/4"
 Size of compensating ring flanged Length of plain part top 6.4 Description of longitudinal joint Weld No. of strengthening rings Yes
 bottom 6.4 Thickness of plates crown 6.4 bottom 6.4 Working pressure of furnace by the rules 210 Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 3/4" Top 5/8" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 9 1/2" x 6 7/8" Back 8 7/8" x 8 7/8" Top 7 1/4" x 7 1/8" If stays are fitted with nuts or riveted heads Both Working pressure by rules 211
 Material of stays W1 Area at smallest part 1.997 Area supported by each stay 67.94 sq in Working pressure by rules 219 End plates in steam space:
 Material Steel Thickness 1 1/8" Pitch of stays 16 1/4" x 15 7/8" How are stays secured D nuts Working pressure by rules 212 Material of stays Steel
 Area at smallest part 6.2126 Area supported by each stay 266 sq in Working pressure by rules 243 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 246
 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 10 1/2" x 7 1/2"
 Pitch across wide water spaces 13" Working pressures by rules 212 Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9 1/2" x 1 3/4" Length as per rule 35" Distance apart 7 3/4" Number and pitch of stays in each 4 @ 7 1/2"
 Working pressure by rules 247 Steam dome: description of joint to shell Yes % of strength of joint 89
 Diameter Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes
 Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to Yes
 Date of Test Yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship

185.4



IS A DONKEY BOILER FITTED?

Yes If so, is a report now forwarded? Yes

SPARE GEAR. State the articles supplied:-

Two each bolts & nuts for top & bottom ends & main bearings
One set bilge pump valves. One set coupling bolts one set piston rings for each piston
One set of springs and valves for feed pump. Engine room bilge pump: pump room bilge
pump and Donkey pump. 1 safety valve spring. Six spare boiler tubes. Two propeller
blades. 1 rail shaft. a quantity of assorted half nuts of various sizes
of mild steel of various sizes

The foregoing is a correct description,

For main boiler only
A. C. Howitt for S. S. Co.
SUN SHIPBUILDING COMPANY

Merchant Shipbuilding Corp.

New York Shipbuilding Corp. P. M. Young

Manufacturer.

W. M. Musher

1920
Dates of Survey while building
During progress of work in shops -- June 30 July 23-28 Aug 2-9-11-14 Sept 8-13-15-17-20-27 Oct 4-11-26-28 Nov 10-15-22 Dec 10-14-22-28
During erection on board vessel --- July 9-19-22 Aug 11-17-18-19-21 Jan 4-5-10-20-25 Feb 9-15-23 March 3-11-21-22-29 Apr 1-5-12-13-19-26-27
Total No. of visits 66
Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 20-10-20 Slides 11-10-20 Covers 14-10-20 Pistons 29-11-20 Rods 29-11-20
Connecting rods 14-10-20 Crank shaft 10-17-20 Thrust shaft 23-2-21 Tunnel shafts / Screw shaft 12-4-21 Propeller 12-4-21
Stern tube 12-4-21 Steam pipes tested 19-4-21 Engine and boiler seatings 10-1-21 Engines holding down bolts 5-5-21
Completion of pumping arrangements 24-5-21 Boilers fixed 10-1-21 Engines tried under steam 24-5-21
Completion of fitting sea connections 28-4-21 Stern tube 28-4-21 Screw shaft and propeller 28-4-21
Main boiler safety valves adjusted 31-5-21 Thickness of adjusting washers Lock nuts

Material of Crank shaft OH Steel Identification Mark on Do. W.B. Material of Thrust shaft OH Steel Identification Mark on Do. WB
Material of Tunnel shafts / Identification Marks on Do. / Material of Screw shafts OH Steel Identification Marks on Do. WB
Material of Steam Pipes Steel Test pressure 700 lb

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.) The Machinery of this vessel has been
built under special survey. Materials & workmanship good. The Boilers of this vessel have
been built under special survey Materials & Workmanship good
The Engines and boilers have been securely fitted on board the vessel
and proved satisfactory under steam trial. It is submitted that the
vessel be eligible for a record of + LMC 6-21 Fitted for oil fuel 6-21
Flash point above 150°F. in the Register Book

Pumps: Donkey pump 14 x 9 1/2 x 12 Engine room bilge 6 x 5 x 6 Sanitary 7 1/2 x 6 x 10 Fresh water 4 1/2 x 3 1/4 x 4
Evaporator 6 x 4 x 6 Main feed two (2) 12 x 8 x 24 Service two (2) 6 x 3 1/2 x 6 Transfer 2 1/2 x 7 x 10
Pump room bilge 6 x 5 3/4 x 6

H & I Crank shaft coupling indented faced off again all good.

The amount of Entry Fee ... £ 30.00 : When applied for, 19
Special Usher ... £ 175.00 :
Donkey Boiler Fee ... £ 35.00 :
Travelling Expenses (if any) ... £ 5.00 :
When received, 21/8/21

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

Committee's Minute New York JUN 28 1921

Assigned + LMC - 6.21

MACHINERY DEPT
WRITTEN 28.7.21
dated 12.7.21

