

"LA BREA"

REC'D NEW YORK Nov. 29-1918

pt. 4.

REPORT ON MACHINERY.

No. 30231

Received at London Office

MON 09 DEC 1918

Date of writing Report Nov 12 1918 When handed in at Local Office Nov 13 1918 Port of Philadelphia Pa

No. in Survey held at Chester Pa Date, First Survey Jan 24 1918 Last Survey Nov 9 1918
Reg. Book. 17 on the Screw Steamer "La Brea Brea"

Master J. A. Grant Built at San Francisco By whom built Union Oil Co. Nokes Tons { Gross 6945
Net 4274
When built 1916

Engines made at Chester Pa By whom made Sam Ship-Building Co when made 1918
Boilers made at _____ By whom made _____ when made _____

Registered Horse Power _____ Owners Union Oil Co of California Port belonging to Los Angeles
Nom. Horse Power as per Section 28 585 514 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 27-45 1/2-46 Length of Stroke 51 Revs. per minute 250 Dia. of Screw shaft 15 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
on the propeller boss Yes 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
liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush _____

Dia. of Tunnel shaft 13.96 Dia. of Crank shaft journals 14.65 Dia. of Crank pin 13.7 Size of Crank webs 10 1/2 Dia. of thrust shaft under
collars 15 Dia. of screw 14 Pitch of Screw 14-5 No. of Blades 4 State whether moveable Yes Total surface 86

No. of Feed pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
No. of Bilge pumps _____ Diameter of ditto _____ Stroke _____ Can one be overhauled while the other is at work _____
No. of Donkey Engines _____ Sizes of Pumps _____ No. and size of Suctions connected to both Bilge and Donkey pumps _____

In Engine Room _____ In Holds, &c. _____

No. of Bilge Injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine room & size _____

Are 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 _____

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

Are 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 _____

Are 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 _____

What pipes are carried through the bunkers _____ How are they protected _____

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

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

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

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____

Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____

Working Pressure 190.75 Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____

Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to
each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____

Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates _____

Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____

Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____

Size of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____

Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____

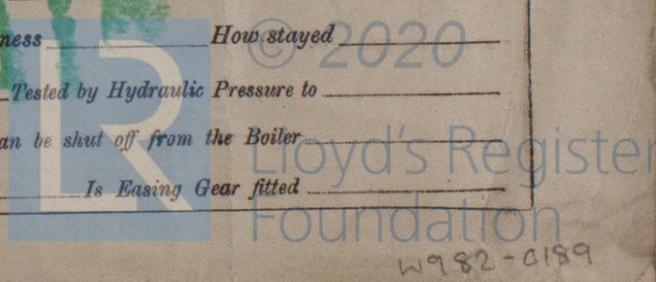
Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____

Pitch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____ End plates in steam space: _____

Material of stays _____ Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____

Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and
thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
Working pressure by rules _____ 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 _____

SUPERHEATER. 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 _____



W982-0189

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 conn rod top and bottom bolts and nuts
2 main bearing bolts, 2 sets coupling bolts, 1 set feed and bilge pump valves
1 set of piston rings for each engine, 1 propeller shaft, 1 propeller blade, 1 pair
connecting rod brasses, and crankhead brasses, 1 set link brasses, 1 eccentric strap complete
a quantity of assorted bolts and nuts. Iron of various sizes

The foregoing is a correct description,

Robert G. M. G.

Sun Shipbuilding Co
CHESTER, PA.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- Jan 24, April 1, June 22-25, Aug 3, June 11-18-20, July 1-6, Aug 2-21, Sept 13.
During erection on board vessel -- Sept 24-28-30, Oct 10-18-21-29, Nov 1-9.
Total No. of visits 23.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 6-7-18 Slides 20-6-18 Covers 20-6-18 Pistons 25-4-18 Rods 25-4-18
Connecting rods 25-4-18 Crank shaft 6-7-18 Thrust shaft 2-8-18 Tunnel shafts Screw shaft 28-9-18 Propeller 10-10-18
Stern tube Steam pipes tested 1-11-18 Engine and boiler seatings 8-10-18 Engines holding down bolts 29-10-18
Completion of pumping arrangements Boilers fixed Engines tried under steam 9-11-18
Completion of fitting sea connections Stern tube Screw shaft and propeller 28-9-18
Main boiler safety valves adjusted 9-11-18 Thickness of adjusting washers Lock nuts.
Material of Crank shaft Steel Identification Mark on Do. 2998 Material of Thrust shaft Steel Identification Mark on Do. 3493
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 1410
Material of Steam Pipes Lap welded steel Test pressure 540 lbs.
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
Is this machinery duplicate of a previous case *Yes* If so, state name of vessel

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

The engines have been constructed and fitted ^{securely} on board under special survey. The materials and workmanship are sound and good and the engines proved satisfactory on steam trial.

The main boiler safety valves have been set to 195 lbs per sq in to conform with shafting of the new reciprocating engines, that have replaced the geared turbines. A new thrust shaft has now been fitted to vessel.

It is submitted that the vessel be eligible to remain as classed with a fresh record of + NE-11-18, also record for tail shaft 11-18, and the boiler pressure recorded as 190 lbs per sq in.

The vessel was sufficiently out of the water to allow of tail shaft to be drawn. Tail shaft was examined, and found in order. Stern bush was re-worked.

The amount of Entry Fee ... £ : :
Special ... £ 200.00 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 4.50 : :
When applied for, Nov 13 1918.
When received, 19.

Wm. Tunham

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York DEC - 3 1918

TUE. 18. FEB. 1919

Assigned + N.E. 11.18

T.S. 11.18

note Mr. M...



© 2020

Lloyd's Register Foundation