

REC'D NEW YORK JAN 29 1921

Rpt. 4.

REPORT ON MACHINERY.

WED. 16 FEB. 1921

Date of writing Report Jan 20 1921 When handed in at Local Office Jan 25 1921 Port of Philadelphia
 No. in Survey held at Camden Date, First Survey April 6-1920 Last Survey Jan 20 1921
 Reg. Book. on the New Steel S.S. Camden (Number of Visits 51)
 Master C. Hansen. Built at Camden By whom built New York S.B. Corp. 1921-1
 Engines made at Camden By whom made New York S.B. Corp. (258) when made 1921-1
 Boilers made at Camden By whom made New York S.B. Corp. (258) when made 1921-1
 Registered Horse Power Owners United Fruit Company Port belonging to New York
 Nom. Horse Power as per Section 28 601 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 24" x 45" x 45" Length of Stroke 51" Revs. per minute 80 Dia. of Screw shaft as per rule 15.33" Material of screw shafts I-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 5'-4"
 Dia. of Tunnel shaft as per rule 14.048" Dia. of Crank shaft journals as per rule 14.45" Dia. of Crank pin 15.5" Size of Crank webs 11" x 24" Dia. of thrust shaft under
 collars 15" Dia. of screw 18'-0" Pitch of Screw 15'-6" No. of Blades 4 State whether moveable yes Total surface 100.5 sq ft
 No. of Feed pumps 2 Diameter of ditto 12 x 8 Stroke 24" Can one be overhauled while the other is at work yes with automatic regulator.
 No. of Bilge pumps 2 Diameter of ditto 14 x 8 Stroke 24" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 14 Sizes of Pumps see over No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 14 @ 3" & 1 @ 3" special In Holds, &c. 1 @ 2" dia main pump room.
 No. of Bilge Injections 10 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size yes 3"
 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 Valves
 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 below
 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 none Is it fitted with a watertight door worked from yes

BOILERS, &c.—(Letter for record R) Manufacturers of Steel Carnegie Steel Corp
 Total Heating Surface of Boilers 8952.2 Is Forced Draft fitted yes No. and Description of Boilers Three single ended
 Working Pressure 195 Tested by hydraulic pressure to 293 lbs Date of test 8-9-20 No. of Certificate 482
 Can each boiler be worked separately yes Area of fire grate in each boiler 63.25 sq ft No. and Description of Safety Valves to
 each boiler Two spring loaded Area of each valve 9.62 sq ft Pressure to which they are adjusted 195 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 15" Mean dia. of boilers 15'-10" Length 11'-4" Material of shell plates Steel
 Thickness 1 3/4" Range of tensile strength 41680 lbs Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.R.
 long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 1/4" Lap of plates width of butt straps 22 3/4"
 Per centages of strength of longitudinal joint rivets 84.4 plate 84.6 Working pressure of shell by rules 246 lbs Size of manhole in shell 16 x 12"
 Size of compensating ring 2'-0" x 2'-8" No. and Description of Furnaces in each boiler 3 Corrugated Material Steel Outside diameter 4'-2 1/2"
 Length of plain part top 1/8" bottom 1/8" Thickness of plates crown 5/8" Description of longitudinal joint weld No. of strengthening rings 1
 Working pressure of furnace by the rules 200 lbs Combustion chamber plates: Material Steel Thickness: Sides 7/8" Back 7/8" Top 7/8" Bottom 1 1/16"
 Pitch of stays to ditto: Sides 1/8" x 1/8" Back 6/8" x 1/8" Top 1/2" x 1/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 269 lbs
 Material of stays Knot Iron Area at smallest part 1.62 sq ft Area supported by each stay 49.6 sq ft Working pressure by rules 196 lbs End plates in steam space:
 Material Steel Thickness 1 3/16" Pitch of stays 14 x 1 1/2" How are stays secured Nuts Working pressure by rules 212 lbs Material of stays Steel
 Area at smallest part 6.49 sq ft Area supported by each stay 29.45 sq ft Working pressure by rules 226 lbs Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1 5/8" Greatest pitch of stays 14 x 1 1/2" Working pressure of plate by rules 318 lbs
 Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 3/4" Material of tube plates Steel Thickness: Front 1 1/2" Back 3/4" Mean pitch of stays 9"
 Pitch across wide water spaces 13" Working pressures by rules 212 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 9" x 2" Length as per rule 2'-11 1/2" Distance apart 7 3/4" Number and pitch of stays in each 4 @ 1 1/2"
 Working pressure by rules 249 lbs Steam dome: description of joint to shell none % of strength of joint yes
 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 2 Thickness yes How stayed yes
 No. of Visits 76 SUPERHEATER. Type none Date of Approval of Plan Tested by Hydraulic Pressure to 2021
 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

Lloyd's Register
W1248-0060
Foundation

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:—

Two each bolts & nuts for top & bottom ends & main bearings.
One set coupling bolts one set feed & bilge pump valves Quantity of assorted bolts nuts & iron. One tail shaft
section of crank shaft

Pumps fitted. One main & one auxiliary feed pump. 12 x 8 x 7 1/2. One auxiliary air & oil pump. 12 x 14 x 14 1/2 One bilge ballast dky 14 x 10 1/2
One sanitary pump 4 1/2 x 4 x 10, 2 fuel oil (Bk). 5 1/2 x 3 1/2 x 5, one fresh water dky 6 x 5 3/4 x 6, One evaporator 14 1/2 x 3 1/2 x 4, Four cargo oil pps 16 x 14 x 16.
One bilge pump one fresh fuel oil pp & fresh bilge pps each 6 x 5 3/4 x 4.

The foregoing is a correct description,

New York Shipbuilding Corp. Manufacturer.

Dates of Survey (During progress of work in shops - - -) April 6-16-20 May 11-12-19-20 June 8-10-15-21-30 July 7-13-20-23-26 Aug 2-9-11-18 Sept 8-13-14-17-23-27 Oct 11-18-20-26 Nov 1-10-13-29 Dec 7-9-10-16-19-26 Jan 1921 10-14-20.
while building (During erection on board vessel - - -) 51. Total No. of visits 51.

Is the approved plan of main boiler forwarded herewith? Yes.

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 8-9-20 Slides 7-8-20 Covers 7-8-20 Pistons 11-10-20 Rods 11-10-20
Connecting rods 11-10-20 Crank shaft 11-10-20 Thrust shaft 11-10-20 Tunnel shafts none. Screw shaft 11-10-20 Propeller 8-9-20
Stern tube 13-4-20 Steam pipes tested 18-12-20 Engine and boiler seatings 10-11-20 Engines holding down bolts 29-11-20
Completion of pumping arrangements 24-12-20 Boilers fixed 4-12-20 Engines tried under steam 20-1-21
Completion of fitting sea connections 23-11-20 Stern tube 23-11-20 Screw shaft and propeller 23-11-20
Main boiler safety valves adjusted 10-1-21 Thickness of adjusting washers lock nuts.

Material of Crank shaft Steel Identification Mark on Do. W.B. Material of Thrust shaft Steel Identification Mark on Do. W.B.

Material of Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. W.B.

Material of Steam Pipes Steel Test pressure 400 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? Yes

Is this machinery duplicate of a previous case? Yes. If so, state name of vessel Union S S Corp S.S. 1011-15.

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

The machinery of this vessel has been built under special survey, the materials & workmanship are good & the hydraulic tests on the boilers proved satisfactory. The whole of the machinery is securely fixed in place & was tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have records LMC. 1-21. Fitted for oil fuel F.P. above 150°F 1-21.

It is submitted that this vessel is eligible for THE RECORD. + LMC. 1-21 F.D.

Fitted For. Oil Fuel 1-21 F.P. above 150°F.

The amount of Entry Fee ... \$ 15.00 : When applied for.
Special ... \$ 250.75 :
Donkey Boiler Fee ... £ : When received.
Travelling Expenses (if any) \$ 10.00 : 24/2/21

Committee's Minute New York FEB -1 1921

Assigned + Lmc. 1-21

MACHINERY CERT. WRITTEN 2/21

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