

# REPORT ON MACHINERY

WELL JUL 28 1920

Received at London Office

of writing Report 25<sup>th</sup> June 1920 When handed in at Local Office 19 Port of *Wilmington N.C.*  
 in Survey held at *Wilmington N.C.* Date, First Survey 29<sup>th</sup> Jan 20 Last Survey 29<sup>th</sup> May 1920  
 Book. on the *City of Joliet* Years 1448  
 Master *William Logan* Built at *Wilmington N.C.* By whom built *George A. Fuller & Co.*  
 Engines made at *Hamilton, Ohio* By whom made *Hoover Owens & Reuschler & Co.* when made 1919  
 Moulders made at *Buffalo N.Y.* By whom made *Barber Asphalt Paving Co.* when made 1919  
 Registered Horse Power Owners *U.S. Shipping Board* Port belonging to *Wilmington N.C.*  
 Horse Power as per Section 28 590 Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *Yes*

**GINES, & Co. — Description of Engines** *Triple expansion* No. of Cylinders 3 *14-49* No. of Cranks 3  
 of Cylinders *24 1/2" 41 1/2" 72"* Length of Stroke *48"* Revs. per minute *88* Dia. of Screw shaft *as per rule 11 3/8" as fitted 15 3/8"* Material of *O.H. Steel*  
 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  
 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  
 are fitted, is the shaft lapped or protected between the liners *✓* Length of stern bush *61"*  
 of Tunnel shaft *as per rule 13-04 13-08 as fitted 13 7/8"* Dia. of Crank shaft journals *as per rule 13-72 as fitted* Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under  
 arms Dia. of screw *17' 0"* Pitch of Screw *13' 1"* No. of Blades *4* State whether moveable *Yes* Total surface *88.18 sq. ft.*  
 of Feed pumps 2 Diameter of ditto *12" x 8"* Stroke *24"* Can one be overhauled while the other is at work *Yes*  
 of Bilge pumps 2 Diameter of ditto *5"* Stroke *21"* Can one be overhauled while the other is at work *Yes*  
 of Donkey Engines 2 Sizes of Pumps *12" 8 1/2" 12" 7" 12" 10 1/2" 12"* No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room 3 — *3 1/2" Bilge suction, Centre, Port & Star.* In Holds, &c. 2 — *4" Suctions from Fore and Aft Peaks #1, 2.*  
 3. 5 & 6 double bottom tanks & 3" Bilge suction from Fore and Aft Wells, Centre Port & Star.  
 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"*  
 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*  
 all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Cocks*  
 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*  
 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*  
 that pipes are carried through the bunkers *Suctions from Peaks and double bottom* How are they protected *Wood covering*  
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*  
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*  
 the Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *upper deck grating in engine room*

**ILLERS, & Co. — (Letter for record)** Manufacturers of Steel

total Heating Surface of Boilers *9150* Is Forced Draft fitted *yes* No. and Description of Boilers *3 Watertube Boilers*  
 Working Pressure *200* Tested by hydraulic pressure to Date of test No. of Certificate  
 in each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to  
 h 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  
 g. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
 even or centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell  
 plate No. and Description of Furnaces in each boiler Material Outside diameter  
 length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings  
 bottom 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  
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:  
 Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays  
 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



IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

25 Main Condenser tubes. 25 Aux. Condenser tubes. 2 Safety valves springs. 6 Boiler tubes. 1 set of Feed and Bilge pump valves. A quantity of assorted bolts and nuts and iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

Jan. 29. Feb. 4. 17. Mar. 5. 17. 29. April 13. 15. 17. 28. May 5. 11. 14. 25. 29.

Is the approved plan of main boiler forwarded herewith

No.

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts 17. 2. 20. Screw shaft 29. 12. 19. Propeller 30. 12.

Stern tube 15. 1. 20.

Steam pipes tested 15. 4. 20.

Engine and boiler seatings 29. 1. 20. Engines holding down bolts 17. 2. 20.

Completion of pumping arrangements 11. 5. 20.

Boilers fixed 17. 3. 20.

Engines tried under steam 11. 5. 20.

Completion of fitting sea connections 29. 12. 19.

Stern tube 26. 12. 19.

Screw shaft and propeller 27. 12. 19.

Main boiler safety valves adjusted 11. 5. 20.

Thickness of adjusting washers No washers.

Material of Crank shaft

Identification Mark on Do.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts O.H. Steel

Identification Marks on Do. 133. 173. 136. 145.

Material of Screw shafts O.H. Steel

Identification Marks on Do. 202. W.

Material of Steam Pipes

Steel

Test pressure 600 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 S.S. Cranford Apt. # 83.

General Remarks

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

The machinery has been properly fitted on board and on completion tried under steam and found satisfactory.

In my opinion the vessel is eligible for the record L.M.C. 5.20.

Engines constructed under survey of  
American Bureau of Shipping

It is submitted that  
this vessel is eligible for  
THE RECORD. L.M.C. 5.20 FI

3 Water tube Boilers 200 lbs.

Fitted for oil fuel 5.20 F.P. above 150°F

Subject to the Water Tube Boiler  
being surveyed annually.

R.M.

3/8/20

The amount of Entry Fee ... £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

19.

When received,

307/10/20

Committee's Minute

Assigned

New York JUL 13 1920

MACHINERY CERT.

WRITTEN.

12/8/20

Geo. Allan

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation