

REPORT ON MACHINERY.

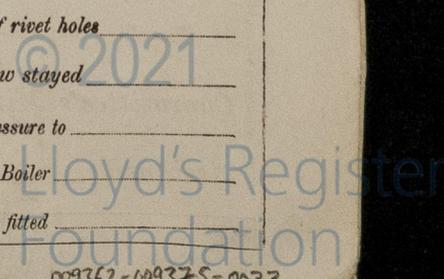
REC'D NEW YORK AUG 6 1927 No. 4252

Date of writing Report Aug 4 1927 When handed in at Local Office Aug 4 1927 Port of Newport News Va
 No. in Survey held at 16220 on the Machinery of the Steel Screw Steamer "CHAMBLEE" Date, First Survey July 16 1927 Last Survey Aug 2 1927
 Master Dulluth Minn. Built at Dulluth Minn. By whom built McDonnell Dulluth Co. Tons { Gross 2323 Net 1394 }
 Engines made at Dulluth Minn. By whom made McDonnell Dulluth Company When built 1919
 Boilers made at Dulluth Minn. By whom made McDonnell Dulluth Company when made 1919
 Registered Horse Power _____ when made 1919
 Owners Hammond Lumber Company Port belonging to New York
 Nom. Horse Power as per Section 28 262 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion Surface Condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20"-33"-54" Length of Stroke 40 Revs. per minute 85 Dia. of Screw shaft 1 1/2" Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No Is the after end of the liner made water tight
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes
 If the liner is in more than one length are the joints burned No If the liner does not fit tightly at the part
 between the bearings are the joints lapped or protected between the liners Flap joints - rolled Length of stern bush 4'-0 3/4"
 Dia. of Tunnel shaft 10 1/2" Dia. of Crank shaft journals 10 1/2" Dia. of Crank pin 1 1/4" Size of Crank webs 2 1/2 x 7 1/2" Dia. of thrust shaft under
 collars 11" Dia. of screw 1 1/2" Pitch of Screw 12'-5" No. of Blades 4 State whether moveable No Total surface 64 sq ft
 No. of Feed pumps 2 Diameter of ditto 3 1/4" Stroke 20" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 20" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 10 x 6 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 in Engine Room 4-3" One Tunnel Well 3" In Holds, &c. Forward Hold 2-3"
 No. of Bilge Injections 6 Connected to condensers circulating pump Yes 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 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 Yes
 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 Top platform in E. Room

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Duluth's Steel Co. Chicago Ill.
 Total Heating Surface of Boilers 3828 Is Forced Draft fitted Yes No. and Description of Boilers 2 Triple Piped 2 SB
 Working Pressure 190 lbs Tested by hydraulic pressure to 285 lbs Date of test July 22 1927 No. of Certificate _____
 Can each boiler be worked separately Yes Area of fire grate in each boiler 50 sq ft No. and Description of Safety Valves to
 each boiler Two Spring loaded Area of each valve 7.07 sq in Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork about 10" Mean dia. of boilers 13'-0" Length 11'-0" Material of shell plates Steel
 Thickness 1/4" Range of tensile strength 60000 lbs Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.L.A.P.
 Longitudinal seams T.R.D.B.S. Diameter of rivet holes in long. seams 1/4" Pitch of rivets 8 1/4" Width of butt straps 1 1/4"
 Percentages of strength of longitudinal joint _____ Working pressure of shell by rules 205 lbs Size of manhole in shell 16" x 12"
 Diameter of compensating ring 34 x 31 x 1/4" No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 52 1/4"
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint Welded No. of strengthening rings Corrupted
 Working pressure of furnace by the rules 193 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1 1/2"
 Pitch of stays to ditto: Sides 6 x 7 1/2" Back 6 1/4 x 6 1/2" Top 6 x 7 1/2" If stays are fitted with nuts or riveted heads R. Heads Working pressure by rules 212 lbs
 Material of stays Steel Area at smallest part 1.27 sq in Area supported by each stay 4.707 sq in Working pressure by rules 222 lbs End plates in steam space:
 Material Steel Thickness 1 1/16" Pitch of stays 14 x 15" How are stays secured D. Nuts Working pressure by rules 239 lbs Material of stays Steel
 Area at smallest part 5.93 sq in Area supported by each stay 210 sq in Working pressure by rules 262 Material of Front plates at bottom Steel
 Thickness 3/4" Material of Lower back plate Steel Thickness 5/8" Greatest pitch of stays 3 1/2 x 6 1/2" Working pressure of plate by rules 324 lbs
 Diameter of tubes 2 1/2" Pitch of tubes 3 3/4 x 3 3/8" Material of tube plates Steel Thickness: Front 3/4" Back 1/16" Mean pitch of stays 10 1/2 x 7 1/2"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 291 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 8 5/8 x 1 1/4" Length as per rule 26 3/32 Distance apart 7 5/8" Number and pitch of stays in each 3-6"
 Working pressure by rules 229 Steam dome: description of joint to shell Not fitted % 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 Not fitted 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 :-

One propeller: one set of top & bottom rod-brasses: two top rod bolts & nuts: two bottom rod bolts & nuts: two main bearing bolts & nuts: piston rings for H.P. M.P. & L.P. pistons: one set of sea & hold pump valves for attached pumps: one set of air pump valves: valves & seats for independent auxiliary sea pumps & hold pumps: bolts & nuts of various sizes: iron bars & flats 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

July 16. 18. 20. 22. 27. 29. 30. Aug 1. 2. 1927
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Is the approved plan of main boiler forwarded herewith Yes.

Dates of Examination of principal parts—Cylinders 20/7/27 Slides 20/7/27 Covers 20/7/27 " donkey " 20/7/27 Pistons 20/7/27 Rods 20/7/27
Connecting rods 20/7/27 Crank shaft 20/7/27 Thrust shaft 20/7/27 Tunnel shafts 20/7/27 Screw shaft 18/7/27 Propeller 18/7/27
Stern tube 18/7/27 Steam pipes tested 22/7/27 Engine and boiler seatings 20/7/27 Engines holding down bolts 20/7/27
Completion of pumping arrangements 27/7/27 Boilers fixed Engines tried under steam 18/27
Completion of fitting sea connections 27/7/27 Stern tube Screw shaft and propeller
Main boiler safety valves adjusted 18/27 Thickness of adjusting washers Lock Nut fitted
Material of Crank shaft Steel Identification Mark on Do. Material of Thrust shaft Steel Identification Mark on Do.
Material of Tunnel shafts Steel Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do.
Material of Steam Pipes Mould Iron or Steel Tubing Test pressure
Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F.

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 S. Francis Xavier & S. Chappell
4029, N.N.S.

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

The Engines & Boilers of this vessel were built under the supervision of the American Bureau of Shipping and the materials tested in accordance with their Rules. They are of good design and the workmanship is good & efficient. The Boilers have been examined internally and found in good condition: they were subjected to a hydraulic test of 275 lbs. per sq. inch and found tight & sound. Boiler mounting examined & found in good order. The mounting of the Boilers compared with the photographs supplied and found to agree. The Safety Valves adjusted to blow at 170 lbs. per sq. inch. Main Engines and auxiliary machinery, Steam Clutch for Engine & Windlass Engine tested & found to be in good working order. Main Engine & Boiler fastenings examined & found efficient.

The case is respectfully submitted to the notation of L.M.C. 8-27 - Propeller No. 8-27 in the Register Book. The propeller shall be drawn at intervals of two years in examination of lower joints.

Certificate (if required) to be sent to
This Surveys are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ : : When applied for, }
Special ... \$321.50 : : Aug 5 1927 }
Donkey Boiler Fee ... £ : : When received, }
Travelling Expenses (if any) \$ 10.50 : : 10/9/27 }
[NEW YORK AUG 10 1927]

C. H. Hudson
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
Assigned See form Rpt. 9

