

REC'D NEW YORK JUL 28 1921

Rpt. 4.

REPORT ON MACHINERY.

No. 151

Received at London Office

MUN. AUG. 22 1921

Date of writing Report 24/2/1921 When handed in at Local Office 24/2/1921 Port of Cleveland Ohio
No. in Survey held at Hamilton Ohio Date, First Survey 1st Dec. 1920 Last Survey 23 Feb. 1921
Reg. Book. on the ENG. N^o 4942 HULL N^o 31 (Number of Visits)

Master Hamilton O. Built at Bath Maine By whom built Wells Steamship Co. Tons { Gross
Engines made at Hamilton O. By whom made Hooven Owens & Rentschler Co. When built 1921 Net
Boilers made at Hamilton O. By whom made Hooven Owens & Rentschler Co. when made 1921
Registered Horse Power Owners Port belonging to
Nom. Horse Power as per Section 28 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Expansion Vertical No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27-45-74" Length of Stroke 51" Revs. per minute 70 Dia. of Screw shaft as per rule Material of screw shaft
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Is the after end of the liner made water tight
in the propeller boss 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 as per rule 13.9" Dia. of Crank shaft journals as per rule 14.6" Dia. of Crank pin 15 1/2" Size of Crank webs 30 1/2" x 10 1/2" Dia. of thrust shaft under
collars 15 1/4" Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
No. of Bilge pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work yes
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+ 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 joints 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
Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
Material 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

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bushes with bolts & nuts. Two bottom end bushes with bolts & nuts. Two main bearing bolts & nuts. Six coupling bolts & nuts. Set of valves for air & bilge pumps. Set of rings for H.P. I.P. & L.P. pistons. Valve stem, link block brasses, & 2 eccentric straps, complete. Air pump rod & tail rod. $\frac{1}{3}$ length crank shaft. Piston follower studs & springs. Cylinders cover & valve chest cover studs.

The foregoing is a correct description,

Hoover Burns Reutcher Co. per J. H. Garbler Manufacturer.

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

1920 1st Dec 7 Dec 18 Dec 1921 4 Jan 18 Jan 25 Jan 8 Feb 15 Feb

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 1/12/20 Slides 8/2/21 Covers 8/2/21 Pistons 8/2/21 Rods 8/2/21
Connecting rods 8/2/21 Crank shaft 18/1/21 Thrust shaft 15/2/21 Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft Steel Identification Mark on Do. LLOYDS Material of Thrust shaft Steel Identification Mark on Do. 4832

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

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

The above Engines have been built under Special Survey. The materials & workmanship employed in their manufacture, so far as can be seen, are sound & efficient. When the Engines have been satisfactorily installed in the vessel, proved satisfactory under working conditions, & spare gear supplied as required by the Rules; this vessel will be eligible in my opinion for Record & L.M.C. (with d)

Certificate (if required) to be sent to

The amount of Entry Fee ... \$: : When applied for,
3/5-L.M.C. fee to be ... \$: :
Special ... \$: :
Credited to Cleveland ... \$: :
Donkey Boiler Fee ... \$: :
Travelling Expenses (if any) \$ 89.85 : : When received,
1921 1921

G. Drummond.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York AUG - 2 1921

Assigned See Br. 1499



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