

REPORT ON MACHINERY.

Received at London Office - 9 MAY 1927

Date of writing Report 19... When handed in at Local Office 19... Port of Cleveland Ohio
 No. in Survey held at Lorain Ohio Date, First Survey 10 Sept 1926 Last Survey 31 March 1927
 Reg. Book. on the S/S "ROBERT HOBSON" (Number of Visits 28)
 Master Lorain Built at Lorain By whom built American S. B. Co Tons { Gross 8024 Net 6315
 Engines made at Lorain By whom made American S. B. Co. when made 1927-3
 Boilers made at Bayonne N.J. By whom made Babcock & Wilcox Co. when made 1927-3
 Registered Horse Power 2200 Owners Interlake S. S. Co. Port belonging to Fairport
 Nom. Horse Power as per Section 28 493 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion vertical No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 24 1/2", 41", 65" Length of Stroke 42" Revs. per minute 95 Dia. of Screw shaft as per rule 13-8/16 Material of screw shaft off 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 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 yes
 Dia. of Tunnel shaft as per rule 12-25/16 Dia. of Crank shaft journals as per rule 12-65/16 Length of stern bush 4'-10"
 Dia. of Crank pin 12 3/4" Size of Crank webs 24 x 8 1/4" Dia. of thrust shaft under bars 13"
 Dia. of screw 15'-0" Pitch of Screw 14'-8" No. of Blades 4 State whether moveable yes Total surface 84 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 12" x 6" x 12" Duplex Stroke 14 x 7 x 16 Simplex Can one be overhauled while the other is at work yes
 No. of Bilge pumps 3 Diameter of ditto 12" x 5" Stroke 13 1/4" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 2-8" x 12" x 14" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps 2
 Engine Room 2-6" x 2-4" In Holds, &c. 2-2 1/2" after end 1 steam siphon 3" in fore peak & 2 steam siphons 3" in dark hold
 No. of Bilge Injections 3 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 2-6"
 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 above
 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 no
 What pipes are carried through the bunkers Widowless, fire, etc. How are they protected so placed as to be free from damage
 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 yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel See N.Y. Rpt. No. 2668
 Total Heating Surface of Boilers 7965 Is Forced Draft fitted yes No. and Description of Boilers 3 B.W. 3 water tube boilers
 Working Pressure 200 Tested by hydraulic pressure to 400 Date of test 3/8/26 No. of Certificates 499,500,501
 Can each boiler be worked separately yes Area of fire grate in each boiler 63 No. and Description of Safety Valves to each boiler 3 Duplex
 Area of each valve 7.068 Pressure to which they are adjusted 180 Are they fitted with easing gear yes
 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 _____
 Diam. of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Percentages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 No. 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 _____
 Thickness 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 _____
 Thickness 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 _____
 No. of rivets _____ Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____

SUPERHEATER. Type B.W. Date of Approval of Plan July 11-1926 Tested by Hydraulic Pressure to _____
 Date of Test 27/8/26 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler yes
 Diameter of Safety Valve 1" Pressure to which each is adjusted 180 Is Easing Gear fitted yes

IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? -

SPARE GEAR. State the articles supplied: -

Two propeller blades, with spare nuts & studs. Set of valves, suction & discharge, for main feed & auxiliary ballast pumps. Boiler handhole plates with nuts & yokes. Boilers & Condenser tubing etc.

The foregoing is a correct description,

The American Ship Bldg Co Manufacturer.

Dates of Survey while building: During progress of work in shops - 1926. Sept. 10, 14, 19, 20, 24, 29, 30, Oct 4, 7, 11, 15, 16, 20, 23, 26, 30 Nov 2, 4
During erection on board vessel - 1926 Nov 11, 12, 13, 17, 18, 19, 22, 23, 29 1927 March 31.
Total No. of visits 28.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts - Cylinders 26/10/26 Slides 22/10/26 Covers 11/10/26 Pistons 16/10/26 Rods 14/10/26
Connecting rods 11/10/26 Crank shaft 16/10/26 Thrust shaft 16/10/26 Tunnel shafts ✓ Screw shaft 16/10/26 Propeller 30/10/26
Stern tube 16/10/26 Steam pipes tested 23/10/26 Engine and boiler seatings 23/10/26 Engines holding down bolts 23/10/26
Completion of pumping arrangements 31/3/27 Boilers fixed 23/10/26 Engines tried under steam 31/3/27
Completion of fitting sea connections 30/10/26 Stern tube 30/10/26 Screw shaft and propeller 30/10/26
Main boiler safety valves adjusted 31/3/27 Thickness of adjusting washers *Lock nuts fitted*
Material of Crank shaft *Off steel* Identification Mark on Do. Material of Thrust shaft *Off steel* Identification Mark on Do.
Material of Tunnel shafts ✓ Identification Marks on Do. Material of Screw shafts *Off steel* Identification Marks on Do.
Material of Steam Pipes *Steel, lap welded* Test pressure *600# per sq in.*
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/S "SAMUEL MATHER"*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The above engines & boilers have been built under special survey. The materials & workmanship employed in their construction are sound & efficient. They have been fitted on board in a satisfactory manner, & found to work well under running conditions. The vessel is eligible in my opinion for record of F.L.M.C. 3-27. in the Register.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3-27. F.D.
3 Watertube boilers. 20075.

J.W.D.
17/6/27.

The amount of Entry Fee ... \$25.00
Special Credit 2/5 fee to N.Y. etc. \$435.50
Donkey Boiler Fee ... \$
Travelling Expenses (if any) \$
Total \$460.50

When applied for, 15 April 1927
When received, 13/5/27
G. Drummond
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute
Assigned + L.M.C. 3-27
Note: W.T.B. Steam Pressure 200 lbs
F.D.
Electric Light

CERTIFICATE WRITTEN 9-5-27

