

# REPORT ON MACHINERY.

No. 1588

REC'D NEW YORK

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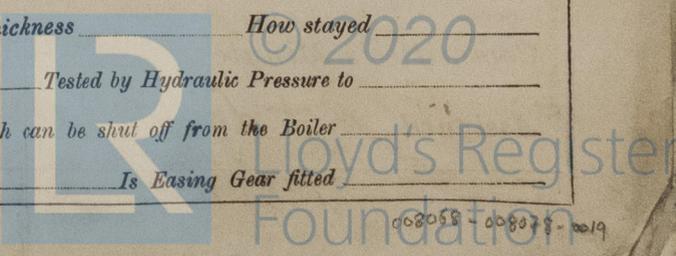
Date of writing Report July 19<sup>th</sup> 1918 When handed in at Local Office July 19<sup>th</sup> 1918 Port of Newport News Va  
 Date, First Survey Nov 2<sup>nd</sup> 1917 Last Survey July 15 1918  
 (Number of Visits 64)  
 Name of vessel STEEL SS "H.M. FLAGLER" Tons Gross 8207 Net 6183  
 Built at Newport News By whom built Newport News S & C When built 1918-7  
 Engines made at Newport News By whom made Newport News S & C when made 1918-7  
 Milers made at Newport News By whom made Newport News S & C when made 1918  
 Registered Horse Power 533 Owners Standard Oil Co of N.Y. Port belonging to Bayonne  
 Net Horse Power as per Section 28 533 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Quadruple Expansion No. of Cylinders 4 No. of Cranks 4  
 Dia. of Cylinders 24, 35, 51, 75 Length of Stroke 51 Revs. per minute 75 Dia. of Screw shaft as per rule 14.85 Material of screw shaft as fitted 15 O.H.S.  
 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  
 Is 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 Length of stern bush 60"  
 Dia. of Tunnel shaft as per rule 13.49 Dia. of Crank shaft journals as per rule 14.18 Dia. of Crank pin 14 3/4" Size of Crank webs 9 3/4" Dia. of thrust shaft under  
 bars 14 1/4" Dia. of screw 17 1/2" Pitch of Screw 18"0" No. of Blades 4 State whether moceable yes Total surface 1014 sq ft  
 No. of Feed pumps 3 Diameter of ditto 11x8" Stroke 24 Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24 Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 3 Sizes of Pumps 12x8 1/2x12-9x8 1/2x10-8x12 No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room Three 3 1/2" In Holds, &c. Two 3" in fore hold

No. of Bilge Injections 1 sizes 9" Connected to condensers to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"  
 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 and 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  
 How are the pipes carried through the bunkers fuel tank & oil tank How are they protected Iron covers  
 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

MANUFACTURERS, &c.—(Letter for record S.) Manufacturers of Steel Lukens 112 Co. Carnegie Steel Co.  
 Total Heating Surface of Boilers 7035 sq ft Is Forced Draft fitted yes No. and Description of Boilers 3. S.E. Scotch  
 Working Pressure 220 Tested by hydraulic pressure to 330 Date of test JAN 3. 11. 19 No. of Certificate 185-186-187  
 Can each boiler be worked separately yes Area of fire grate in each boiler 59 sq ft No. and Description of Safety Valves to  
 boiler Two 3" Spring Area of each valve 7.070 sq in Pressure to which they are adjusted 220 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 36" Mean dia. of boilers 14 1/4" Length 11'6" Material of shell plates 18.  
 Thickness 1 1/2" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams L.O.S.  
 seams W.D.W. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 23"  
 Percentages of strength of longitudinal joint  
 rivets 94.1 Working pressure of shell by rules 239 Size of manhole in shell 16x12  
 plate 82.97  
 Diameter of compensating ring 38x34 No. and Description of Furnaces in each boiler 3 Marine Material S. Outside diameter 47 3/8"  
 Length of plain part top 11" Thickness of plates bottom 1 1/2" Description of longitudinal joint Well No. of strengthening rings 1  
 Working pressure of furnace by the rules 240 Combustion chamber plates: Material O.H.S. Thickness: Sides 1 3/32" Back 1 3/32" Top 5/8" Bottom 1 1/4"  
 Thickness of stays to ditto: Sides 7/8x7 Back 7x7 Top 7 1/2x7 If stays are fitted with nuts or riveted heads NUTS Working pressure by rules 231  
 Material of stays S. Area at smallest part 1.48 Area supported by each stay 50.75 Working pressure by rules 233 End plates in steam space:  
 Material S. Thickness 1 3/32" Pitch of stays 17x16" How are stays secured W.D.W. Working pressure by rules 230 Material of stays S.  
 Area at smallest part 7.67 Area supported by each stay 272 Working pressure by rules 276 Material of Front plates at bottom S.  
 Thickness 3/32" Material of Lower back plate S. Thickness 3/4" Greatest pitch of stays 7x7 Working pressure of plate by rules 307  
 Diameter of tubes 2 3/4" Pitch of tubes 4x3 3/4" Material of tube plates S. Thickness: Front 25/32" Back 1 3/16" Mean pitch of stays 12x7 1/2"  
 Thickness across wide water spaces 12 3/4" Working pressures by rules 230 Girders to Chamber tops: Material S. Depth and  
 thickness of girder at centre Two 10x1 1/4" Length as per rule 33" Distance apart 7 1/2" Number and pitch of stays in each 4-7"  
 Working pressure by rules 262 Steam dome: description of joint to shell well % of strength of joint 100  
 Diameter 10" Thickness of shell plates 1 1/2" Material O.H.S. Description of longitudinal joint Well Diam. of rivet holes 1 1/2"  
 Material of rivets S. Working pressure of shell by rules 230 Crown plates 1 1/2" Thickness 1 1/2" How stayed W.D.W.

SUPERHEATER. Type None Date of Approval of Plan None Tested by Hydraulic Pressure to None  
 Date of Test None Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler None  
 Diameter of Safety Valve None Pressure to which each is adjusted None Is Easing Gear fitted None



IS A DONKEY BOILER FITTED? Yes

If so, is a report now forwarded? Yes

SPARE GEAR. State the articles supplied:— Crank shaft, Tail shaft; 2 bronze blades  
A.P. Rod & bucket— C.P. Impeller, Pump bucket, Stern & bilge tables  
Slide valve body, Eccentric straps; Top and bottom end  
brasses and bolts; Main flaring bolts— Set of Coupling bolts  
Piston rings, Piston tubes, Boiler tubes, Nuts, Bolts &  
Nuts of various sizes—

The foregoing is a correct description,  
Newport News Shipbuilding & Dry Dock Co.,

By R. H. Wood Manufacturer.

Dates of Survey while building: During progress of work in shops— 0.2.10.12.24, N.5.12.23.27, J.4.10.12.14.18.20.21, 1917  
During erection on board vessel— J.3.11.16.18.19.23, F.6.8.14.18.21.22, M.2.7.8.16.18.19.29, A.3.8.11.17.19.23, 27  
Total No. of visits 64— Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts— Cylinders M.6.18.28 Slides M.7. Covers J.23 M.7. Pistons J.21 M.7. Rods A.30.  
Connecting rods J.21 Crank shaft A.19.6 Thrust shaft A.17 Tunnel shafts A.17 Screw shaft A.9.2 Propeller M.9.29  
Stern tube F.22 A.8. Steam pipes tested M.16 A.25 Engine and boiler seatings J.11. Engines holding down bolts J.11.  
Completion of pumping arrangements J.15 J.10.11 Boilers fixed J.11. Engines tried under steam J.11  
Completion of fitting sea connections A.27 J.30. Stern tube A.27. J.30. Screw shaft and propeller J.30.  
Main boiler safety valves adjusted J.11 Thickness of adjusting washers See Note

Material of Crank shaft S. Identification Mark on Do. April 29, 6, 7, 18 Material of Thrust shaft S. Identification Mark on Do. M.17.4.18  
Material of Tunnel shafts S. Identification Marks on Do. M.17.4.18 Material of Screw shafts S. Identification Marks on Do. M.17.4.18  
Material of Steam Pipes Steel & Copper Test pressure S. 660 lb. C.P. 140 lb.  
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.P. "ANTWERPEN"

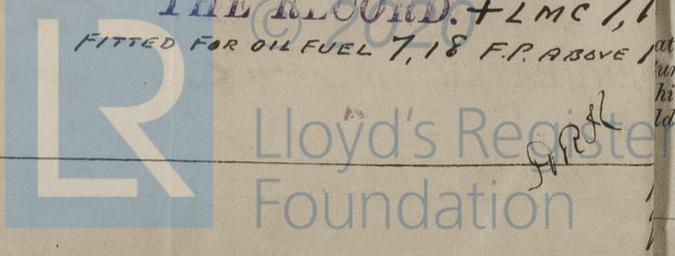
General Remarks (State quality of workmanship, opinions as to class, &c. The machinery has been built under special survey, in accordance with approved plans and Rules for the intended Class of LMC Engines tested and found to work well. The vessel is fitted to burn oil fuel. The fuel is carried in fuel tanks and No. 5 burner tanks. The pumping arrangements are separate from Cargo and bilge systems & the requirements of Sec 49 have been complied with. The oil is atomized by mechanical burners, and supplied by fuel pump in Stowhold. The vessel is eligible, in my opinion, to have the records of LMC 7.18— M.P.s 220 lbs— J.B 180 lbs— Fitted for oil fuel F.P. above 150°F in the Register Book—

The amount of Entry Fee ... \$15.00 : When applied for, 18.7.18  
Special ... \$233.00 :  
Donkey Boiler Fee ... \$10.00 : When received, 19.7.18  
Travelling Expenses (if any) £ : :

John N. Mudd  
Engineer Surveyor to Lloyd's Register of Shipping.  
this vessel is eligible for  
THE LLOYD'S REGISTER OF SHIPPING  
Fitted for oil fuel 7.18 F.P. above 150°F

Committee's Minute New York JUL 30 1918  
Assigned + LMC 7.18  
Fitted for oil fuel 7.18 F.P. above 150°F

MACHINERY CERTIFICATE  
WRITTEN, 20. 8. 18



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