

REPORT ON MACHINERY.

Date of writing Report Dec 9th 1918 When handed in at Local Office Dec 9th 1918 Port of Newport News Va
 No. in Survey held at Newport News Va Date, First Survey Nov 5th 1917 Last Survey Dec 7th 1918
 Reg. Book. 4 on the STEEL S.S. "F. D. ASCHE" (Number of Visits 58)
 Master [Signature] Built at Newport News By whom built Newport News S.S. Co. When built 1918-12
 Engines made at Newport News Va By whom made New S.S. & D. Co. when made 1918
 Boilers made at Newport News By whom made Newport News S.S. & D. Co. when made 1918
 Registered Horse Power 533 Owners Standard Oil Co of N.Y. Port belonging to Newport News
 Nom. 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 57 Revs. per minute 75 Dia. of Screw shaft 14.85 Material of screw shaft OH.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 in 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 13.49 Dia. of Crank shaft journals 14.18 Dia. of Crank pin 14.34 Size of Crank webs 9.34 Dia. of thrust shaft under collars 14.4 Dia. of screw 17.6 Pitch of Screw 18.0 No. of Blades 4 State whether moceable yes Total surface 101.4
 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 3.5 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 3 Sizes of Pumps 12x8.5x12-9x8.5x10-8x5x12 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 3.5" In Holds, &c. Two 3" in F.H.
 No. of Bilge Injections 1 sizes 9" Connected to condenser to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 3.5"
 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 no
 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
 What pipes are carried through the bunkers Fuel tank & Copeland sections 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 no Is it fitted with a watertight door yes worked from [Signature]

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Lucas & Co - Carnegie Steel Co
 Total Heating Surface of Boilers 7035.4 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. 29. 1914 No. of Certificate 188-189-190
 Can each boiler be worked separately yes Area of fire grate in each boiler 59 No. and Description of Safety Valves to each boiler Two 3" Spring Area of each valve 7.07 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 14.4" Length 11.6" Material of shell plates S.
 Thickness 1.32 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams L.O.R. long. seams D.B.S.W. Diameter of rivet holes in long. seams 1.5 Pitch of rivets 8.16 Lap of plates or width of butt straps 23"
 Per centages of strength of longitudinal joint 94.1 Working pressure of shell by rules 239 Size of manhole in shell 16" x 12"
 Size of compensating ring 38" x 34" No. and Description of Furnaces in each boiler 3 Marston Material S. Outside diameter 47.8"
 Length of plain part top 11.6" Thickness of plates bottom 1.16" Description of longitudinal joint Weld No. of strengthening rings yes
 Working pressure of furnace by the rules 240 Combustion chamber plates: Material S. Thickness: Sides 1.32 Back 1.32 Top .58 Bottom 1"
 Pitch of stays to ditto: Sides 7/4 x 7 Back 7 x 7 Top 7/2 x 7 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 231
 Material of stays S. Area at smallest part 148 Area supported by each stay 50.75 Working pressure by rules 233 End plates in steam space: Material S. Thickness 1.32 Pitch of stays 7 x 16 How are stays secured I.N. 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 2.5 Material of Lower back plate S. Thickness 3/4 Greatest pitch of stays 13.7 x 7 Working pressure of plate by rules 267
 Diameter of tubes 2.34 Pitch of tubes 4 x 3.34 Material of tube plates S. Thickness: Front 2.5 Back 1.16 Mean pitch of stays 12 x 7.5
 Pitch across wide water spaces 18.34 Working pressures by rules 230 Girders to Chamber tops: Material S. Depth and thickness of girder at centre two 10" x 1" Length as per rule 33" Distance apart 7.5" Number and pitch of stays in each two 7"
 Working pressure by rules 262 Steam dome: description of joint to shell yes % of strength of joint [Signature]
 Diameter [Signature] Thickness of shell plates [Signature] Material [Signature] Description of longitudinal joint [Signature] Diam. of rivet holes [Signature]
 Pitch of rivets [Signature] Working pressure of shell by rules [Signature] Crown plates [Signature] Thickness [Signature] How stayed [Signature]

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



IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied: *Crank shaft; Tail shaft; Two bronze blades, propeller hub; A.T. rod & bracket; C.P. impeller; Pump links; Feed and bilge pump valves; Slide valve rods; Eccentric straps; Top & bottom end brasses and bolts; Main bearing bolts; Set of coupling bolts; Piston rings; Conduces tubes; boiler tubes; Nuts, bolts, Iron of various sizes*

The foregoing is a correct description,

Newport News Shipbuilding & Dry Dock Co.,

By

J. P. Hood

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *No. 5. 12. 23. 27. D. 4. 10. 12. 14. 18. 20. 21. 1917 - 11. 16. 19. 23. 29. F. 2. 6. 8. 14. 18. 21. 1918*
During erection on board vessel -- *N. 1. 9. 12. 16. 19. 27. 30. D. 2. 3. 5. 7. 1918*
Total No. of visits *58*

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

" " " donkey " " *No*

Dates of Examination of principal parts: Cylinders *A. 3. 11. 24* Slides *J. 10* Covers *J. 27* Pistons *M. 17* Rods *J. 23*
Connecting rods *M. 17* Crank shaft *J. 10* Thrust shaft *S. 9* Tunnel shafts *A. 21* Screw shaft *J. 3* Propeller *J. 27*
Stern tube *M. 28* Steam pipes tested *N. 9. 12. 16* Engine and boiler seatings *M. 27* Engines holding down bolts *N. 27*
Completion of pumping arrangements *D. 3. 5.* Boilers fixed *N. 30* Engines tried under steam *N. 30*
Completion of fitting sea connections *N. 19.* Stern tube *N. 19* Screw shaft and propeller *N. 19*
Main boiler safety valves adjusted *N. 30* Thickness of adjusting washers *Lock nuts.*

Material of Crank shaft *OHG.* Identification Mark on Do. *J. 10. 7. 18* Material of Thrust shaft *OHG.* Identification Mark on Do. *M. 9. 9*

Material of Tunnel shafts *OHG.* Identification Marks on Do. *A. 21. 18* Material of Screw shafts *OHG.* Identification Marks on Do. *J. 3.*

Material of Steam Pipes *STEEL & COPPER* Test pressure *S. 660. C. 440*

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. "H.M. FLAGLER"*

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 L.M.C. - Engines tested & found to work well.*

The vessel is fitted to burn oil fuel - The fuel is carried in fuel tank and No. 5 summer tanks.

The piping arrangements are separated from cargo and bilge systems & Sec. 49 requirements are complied with.

The oil is atomized by mechanical burner and supplied to furnaces by separate fuel pumps in stokehold.

The vessel is eligible in my opinion to have the records of L.M.C. 12-18 TMS 220 lbs. IB 180 lbs

"Notes for oil fuel F.P. above 150°F" in the Register Book -

It is submitted that this vessel is eligible for THE RECORD, + LMC 12-18 FD FITTED FOR OIL FUEL 12-18 F.P. ABOVE 150°F

The amount of Entry Fee ... \$15.00
Special ... \$233.00
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for, 9. 12. 18
When received, 21. 12. 19

Wm. H. Garrison
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned + LMC 12. 18
Fitted for oil fuel 12. 18 F.P. above 150°F.

