

## REPORT ON MACHINERY

No. 76054

Received at London Office

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Date of writing Report *Oct 14<sup>th</sup>* 1922 When handed in at Local Office *Oct 17<sup>th</sup>* 1922 Port of *NEWCASTLE-ON-TYNE*  
No. in Survey held at *Newcastle-on-Tyne* Date, First Survey *December 15<sup>th</sup> 1919* Last Survey *October 13<sup>th</sup> 1922*  
Reg. Book. *52435* on the *Steel Sloop Steamer "Alabama"* (Number of Visits *69*)

Master *-* Built at *Sunderland* By whom built *Sunderland S. & Co. Ltd* Gross *5400*  
Engines made at *Wallasey* By whom made *North Eastern Marine & Co. Ltd* When built *1922*

Boilers made at *do* By whom made *do* when made *1922*

Registered Horse Power *623* Owners *Cie Generale Transatlantique* Port belonging to *France*  
Nom. Horse Power as per Section 28 *623* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*  
Dia. of Cylinders *28" - 46 1/2" - 78"* Length of Stroke *54"* Revs. per minute *75* Dia. of Screw shaft *as per rule 15.56* Material of *steel*  
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 *-* 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 *5-9"*  
Dia. of Tunnel shaft *as per rule 14.28* Dia. of Crank shaft journals *as per rule 14.99* Dia. of Crank pin *16"* Size of Crank webs *24" x 9 1/2"* Dia. of thrust shaft under  
collars *16"* Dia. of screw *18-3"* Pitch of Screw *18-0"* No. of Blades *4* State whether moveable *Yes* Total surface *104 sq ft*  
No. of Feed pumps *one* Diameter of ditto *3 1/2"* Stroke *26"* Can one be overhauled while the other is at work *-*  
No. of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *26"* Can one be overhauled while the other is at work *Yes*  
No. of Donkey Engines *4* Sizes of Pumps *Donkey 11" x 10" x 10"* No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room *3-3 1/2"* *Donkey 9" x 12" x 16"* *Small duplex feed 5" x 7" x 16"* *Donkey duplex feed 9" x 6" x 10"* In Holds, &c. *10-3 1/2"* and one *3 1/2"* tunnel well.

No. of Bilge Injections *one* sizes *10"* Connected to condenser, or to circulating pump *Yes* Is a separate Donkey Suction fitted in Engine room & size *Yes 4"*  
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 *None*  
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 *Below*  
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 *Upper platform*

BOILERS, &c.—(Letter for record *S.*) Manufacturers of Steel *John Spencer*  
Total Heating Surface of Boilers *11500 sq ft for feed* Is Forced Draft fitted *No* No. and Description of Boilers *4 S. Ended Multitubular*  
Working Pressure *180* Tested by hydraulic pressure to *320* Date of test *27.2.22 = 1* No. of Certificate *9653 = 1*  
Can each boiler be worked separately *Yes* Area of fire grate in each boiler *74 sq ft* No. and Description of Safety Valves to  
each boiler *2 Spring loaded* Area of each valve *7.06 sq in* Pressure to which they are adjusted *185 lb* Are they fitted with easing gear *Yes*  
Smallest distance between boilers or uptakes and bunkers or woodwork *4-0"* Mean dia. of boilers *16-6"* Length *11-6"* Material of shell plates *steel*  
Thickness *1 3/8"* Range of tensile strength *28-32* Are the shell plates welded or flanged *20* Descrip. of riveting: cir. seams *D. Exp*  
long. seams *3. B. S. L. Riv.* Diameter of rivet holes in long. seams *1 1/16"* Pitch of rivets *9 3/4"* Lap of plates or width of butt straps *2 1/4"*  
Per centages of strength of longitudinal joint *89.9* Working pressure of shell by rules *183 lb* Size of manhole in shell *16" x 12"*  
Size of compensating ring *Flanged* No. and Description of Furnaces in each boiler *3 Heights* Material *steel* Outside diameter *50 1/2"*  
Length of plain part *top 19"* Thickness of plates *bottom 32"* Description of longitudinal joint *Welded* No. of strengthening rings *-*  
Working pressure of furnace by the rules *187* Combustion chamber plates: Material *steel* Thickness: Sides *3/4"* Back *3/4"* Top *3/4"* Bottom *1 1/2"*  
Pitch of stays to ditto: Sides *10 1/2" x 9"* Back *10 1/2" x 9 1/2"* Top *10 1/2" x 9"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *190*  
Material of stays *steel* Area at smallest part *2.03 sq ft* Area supported by each stay *99.45 sq ft* Working pressure by rules *183* End plates in steam space:  
Material *steel* Thickness *1 1/16"* Pitch of stays *24" x 22"* How are stays secured *3.2 x 14"* Working pressure by rules *185* Material of stays *steel*  
Area at smallest part *9.62 sq ft* Area supported by each stay *52.8 sq ft* Working pressure by rules *189* Material of Front plates at bottom *steel*  
Thickness *3/2"* Material of Lower back plate *steel* Thickness *3/2"* Greatest pitch of stays *15"* Working pressure of plate by rules *183*  
Diameter of tubes *3 1/2"* Pitch of tubes *4 1/2" x 4 3/8"* Material of tube plates *steel* Thickness: Front *3/2"* Back *3/2"* Mean pitch of stays *11 1/8"*  
Pitch across wide water spaces *15"* Working pressures by rules *182* Girders to Chamber tops: Material *steel* Depth and  
thickness of girder at centre *9 1/2" x 2"* Length as per rule *33"* Distance apart *10 1/2"* Number and pitch of stays in each *3-9"*  
Working pressure by rules *219* Steam dome: description of joint to shell *None* % 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 *None* 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 *-*

W650-0104

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 bottom end, and 2 top end bolts + nuts. 2 main bearing bolts + nuts. One set of coupling bolts + nuts. 4 ridge pump valves. One set of Lockwood + Carleoles rings for each cylinder + 4 palete valve. 180 bolts + nuts assorted. 2 cut of iron plate. One cut of iron bar. One propeller shaft. 2 bronze propeller blades.  $\frac{1}{5}$  crankshaft. HP valve spindle. Piston rod + nut. Eccentric rod, air pump rod + bucket + nut. Eccentric theme + strap complete. One pair of crank pin bearings. One guide shoe. One pair of crosshead bushes. One spare impeller + spindle for circulating pump, and a considerable amount of other spare gear of minor importance.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING Co., LTD.

J. J. Harrison

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- 1919 Dec 10-1920 Jan 20-21 Feb 24-25 Mar 29-30 Apr 4-5 May 3-4 Jun 23-24 Jul 6-7 Aug 23-24 Sep 2-3 Oct 14-15 Nov 13-14 Dec 13-14  
During erection on board vessel -- 1922 Sept 22-26 Oct 29-30 Nov 3-5  
Total No. of visits 69

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

Dates of Examination of principal parts—Cylinders 29.12.20 Slides 9.2.22 Covers 29.5.21 Pistons 29.12.20 Rods 7.2.22  
Connecting rods 7.2.22 Crank shaft 20.4.21 Thrust shaft 30.1.20 Tunnel shafts 6.7.21 Screw shaft 24.4.21 Propeller 23.1.21  
Stern tube 19.1.21 Steam pipes tested 9.1.22 Engine and boiler seatings 26.9.22 Engines holding down bolts 5.10.22  
Completion of pumping arrangements 13.10.22 Boilers fixed 5.10.22 Engines tried under steam 13.10.22  
Completion of fitting sea connections Stern tube 26.9.22 Screw shaft and propeller 26.9.22  
Main boiler safety valves adjusted 13.10.22 Thickness of adjusting washers  $P=\frac{3}{8}$   $S=\frac{1}{8}$   $P=\frac{3}{8}$   $S=\frac{1}{8}$   $P=\frac{3}{8}$   $S=\frac{1}{8}$   $P=\frac{3}{8}$   $S=\frac{1}{8}$   
Material of Crank shaft *steel* Identification Mark on Do. 25.4.21.17 Material of Thrust shaft *steel* Identification Mark on Do. 23.1.20.22  
Material of Tunnel shafts *steel* Identification Marks on Do. 6.7.21.17 Material of Screw shafts *steel* Identification Marks on Do. 3.12.20.17  
Material of Steam Pipes *Copper* Test pressure 360 lbs

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. "Jenon" No 2345.

General Remarks

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

This vessel's machinery has been examined during construction, and the materials and workmanship are good and in accordance with the requirements of the rules and the approved plans. On completion it was submitted to a steam trial with satisfactory results at which time the safety valves were adjusted under steam to the working pressure.

It is therefore eligible in my opinion to be classed in the R. Rule with the notation of +LMC 10.22.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 10.22. CL.

The amount of Entry Fee ... £ 6 : 0 :  
Special ... £ 106 : 3 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 17/10/22.  
When received, 27/10/22.

Committee's Minute

FRI. NOV. 17 1922

Assigned

+ LMC 10.22  
C.L.

TUE. NOV. 20 1922

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation