

4.

REPORT ON MACHINERY.

No. 73927

TUE. DEC. 14 1920

Received at London Office

13 DEC 1920

Port of

NEWCASTLE-ON-TYNE

Writing Report on 15th 1920 When handed in at Local OfficeSurvey held at *Wallsend-on-Tyne*Date, First Survey *5th February 1920* Last Survey *Dec. 9th 1920*Book. on the *Steel Screw Steamer "Francaise"*(Number of Visits *5*)Tons { Gross *2200 2163*
Net *1400 1195*Built at *Blythe*By whom built *Blph S.B. & S. & Co Lim*When built *1920*Machinery made at *Wallsend-on-Tyne*By whom made *North Eastern Marine Eng. Co Lim*when made *1920*Machinery made at *do*By whom made *do*when made *1920*

Registered Horse Power

Owners *L. Rouet*Port belonging to *Green*Horse Power as per Section 28 *274*Is Refrigerating Machinery fitted for cargo purposes *no*Is Electric Light fitted *yes*

MACHINERY, &c.—Description of Engines

*Triple Expansion*No. of Cylinders *3*No. of Cranks *3*No. of Cylinders *22-36-60*Length of Stroke *39*Revs. per minute *80*

Dia. of Screw shaft

as per rule *4-6* as fitted *12-15* Material of screw shaft *Iron*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

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

If the shafts are fitted, is the shaft lapped or protected between the liners

Length of stern bush *4-6*

No. of Tunnel shaft

as per rule *10-86*

Dia. of Crank shaft journals

as per rule *11-40*Dia. of Crank pin *11-18*Size of Crank webs *42-18*

Dia. of thrust shaft under

No. of blades *11-18*Dia. of screw *14-9*Pitch of Screw *14-9*No. of Blades *4*State whether moveable *no*Total surface *65-5*No. of Feed pumps *2*Diameter of ditto *3-1/2*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 *2*Sizes of Pumps *10-20-20*

No. and size of Suctions connected to both Bilge and Donkey pumps

In Holds, &c. *no 1-2-3 each 2-3"*Hold *no 4 and*Engine Room *4 of 3"*

Tunnel well one of 3"

No. of Bilge Injections *no*Sizes *8"*Connected to condenser, or to circulating pump *yes*Is a separate Donkey Suction fitted in Engine room & size *yes 3"*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 *both*Are the Discharge Pipes above or below the deep water line *yes*Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes*Are the Blow Off Cocks fitted with a spigot and brass covering plate *yes*

How are they protected

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *yes*That pipes are carried through the bunkers *none*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*MILERS, &c.—(Letter for record *S*)Manufacturers of Steel *John Spencer*Total Heating Surface of Boilers *4642-5*Is Forced Draft fitted *no*No. and Description of Boilers *Two single ended*Working Pressure *180 lbs*Tested by hydraulic pressure to *360 lbs*Date of test *5.4.20*No. of Certificate *9428*Can each boiler be worked separately *yes*Area of fire grate in each boiler *61-8*

No. and Description of Safety Valves to

each boiler *2 Spring loaded*Area of each valve *8-29*Pressure to which they are adjusted *185 lbs*Are they fitted with easing gear *yes*Smallest distance between boilers or uptakes and bunkers or woodwork *9-0*Mean dia. of boilers *15-6*Length *11-0*Material of shell plates *steel*Thickness *1-1/2*Range of tensile strength *28-32*Are the shell plates welded or flanged *no*Descrip. of riveting: cir. seams *8-22*Long. seams *2-1/2*Diameter of rivet holes in long. seams *1-1/2*Pitch of rivets *9-8*Lap of plates or width of butt straps *18-7*

Per centages of strength of longitudinal joint

rivets *86-24*Working pressure of shell by rules *180 lbs*Size of manhole in shell *16" x 12"*Size of compensating ring *flanged*No. and Description of Furnaces in each boiler *3 Brightons*Material *steel*Outside diameter *49"*

Length of plain part

Thickness of plates

Description of longitudinal joint *welded*

No. of strengthening rings

Working pressure of furnace by the rules *180*Combustion chamber plates: Material *steel*Thickness: Sides *23*Back *23*Top *23*Bottom *1"*Pitch of stays to ditto: Sides *10-1/2 x 9-3/8*Back *10-3/8 x 9-3/8*Top *10-1/2 x 9-3/8*If stays are fitted with nuts or riveted heads *nuts*Working pressure by rules *180 lbs*Material of stays *steel*Area at smallest part *2-03-0*Area supported by each stay *98-4-0*Working pressure by rules *180*

End plates in steam space:

Material *steel*Thickness *1-1/2*Pitch of stays *26-3/8 x 24"*How are stays secured *by nuts*Working pressure by rules *181*Material of stays *steel*Area at smallest part *11-04*Area supported by each stay *633-0*Working pressure by rules *181*Material of Front plates at bottom *steel*Thickness *1"*Material of Lower back plate *steel*Thickness *23*Greatest pitch of stays *14-1/2*Working pressure of plate by rules *189*Diameter of tubes *3-1/4*Pitch of tubes *4-1/2 x 4-3/8*Material of tube plates *steel*Thickness: Front *1"*Back *3/4"*Mean pitch of stays *10"*Pitch across wide water spaces *14-1/2*Working pressures by rules *182 lbs*Girders to Chamber tops: Material *steel*

Depth and

Thickness of girder at centre *9-1/2*Length as per rule *33*Distance apart *9-3/8*Number and pitch of stays in each *2-10-1/2*Working pressure by rules *186 lbs*

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

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted

Is Easing Gear fitted

Date of Test

Tested by Hydraulic Pressure to

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Diameter of Safety Valve

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IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top + 2 bottom end bolts + nuts. 2 main bearing bolts + nuts. 6 coupling bolts + nuts. 2 feed pump valves. one set of bilge pump valves. 2 lot of iron plate. one cwt of iron bars. 50 bolts + nuts assorted.
One cast iron headfiller. 2 pair of bottom end bearings. One set of piston rings + springs for each cylinder. 2 safety valve springs. 20 boiler tubes, 14 condenser tubes, a set of feed pump valve seats, a set of bilge pump valve seats, and many other objects of minor importance.

The foregoing is a correct description,

For THE NORTH EASTERN MARINE ENGINEERING CO. LD.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- Feb. 5, 9, 11, 13, 17, 19, 20, 23, 25, 26, Mar. 1, 3, Apr. 9, 12, 14, 15, 29, May 3, 7, 12, 14, 21, June 3, 10, 14, 15, 28, 29, July 1, 5, 8, 16, 21, 27, 29, 31, Aug. 13, 16, 18, 23, 26, Sept. 7, 8, 10, 20, 26, Oct. 4, 6, 12, 25, 27, Nov. 5, 12, 15, 19, 26, Dec. 9, 11, 1920
During erection on board vessel --
Total No. of visits 46

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " none

Dates of Examination of principal parts—Cylinders 13.8.20 Slides 18.8.20 Covers 13.8.20 Pistons 23.9.20 Rods 23.9.20

Connecting rods 23.9.20 Crank shaft 21.5.20 Thrust shaft 8.9.20 Tunnel shafts 18.6.20 Screw shaft 1.7.20 Propeller 24.9.20

Stern tube 14.6.20 Steam pipes tested 4.10.20 Engine and boiler seatings 25.10.20 Engines holding down bolts 25.10.20

Completion of pumping arrangements 12.11.20 Boilers fixed 25.10.20 Engines tried under steam 12.11.20

Completion of fitting sea connections 25.10.20 Stern tube 25.10.20 Screw shaft and propeller 25.10.20

Main boiler safety valves adjusted 12.11.20 Thickness of adjusting washers Port $P = \frac{1}{16}$ Star $P = \frac{1}{16}$

Material of Crank shaft steel Identification Mark on Do. 2.7.20 Material of Thrust shaft steel Identification Mark on Do. 2.7.8.9.20

Material of Tunnel shafts Iron Identification Marks on Do. 2.7.18.6.20 Material of Screw shafts Iron Identification Marks on Do. 2.7.1.7.20

Material of Steam Pipes Not Iron 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 no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. This vessel's machinery has been specially surveyed during construction, and the materials and workmanship are good & in accordance with the rules' requirements and the approved plans. On completion, the engines were seen under working conditions, and the safety valves were then adjusted to the working pressure, all with satisfactory results. She is therefore eligible in our opinion to be classed as regards the machinery, with the notation of +LMC 11.20 in the Reg. Book.

It is submitted that
this vessel is eligible for
THE RECORD. +LMC 12.20

Roll
16/12/20
J.M.

The amount of Entry Fee £ 2 : : When applied for,

Special ... £ 33 : 14 : 13 DEC 1920

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 12.1.1921

FRI. 17 DEC. 1920

Committee's Minute

Assigned

+LMC 12.20

Maurice Patton + J. McMillan
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation