

# REPORT ON MACHINERY.

Received at London Office

WED. APR. 27 1921

Date of writing Report 22<sup>nd</sup> April 1921 When handed in at Local Office 26 April 1921 Port of NEWCASTLE-ON-TYNE

No. in Survey held at South Shields Date, First Survey 29<sup>th</sup> Sept 1919 Last Survey 22<sup>nd</sup> April 1921  
 Reg. Book. "SAINT ROMINIQUE" (Number of Visits 46) Jun 29/22

on the Steel screw steamer "SAINT DOMINIQUE" Tons Gross Net

Master Hull By whom built Livingston & Cooper (No. 193) When built

Engines made at South Shields By whom made Geo. J. Grey & Co. (No. 601) when made 1921

Boilers made at Hellum By whom made Palmer & Co. Ltd. when made 1921

Registered Horse Power 234 Owners Frank Harold de B. Smith Port belonging to LONDON

Nom. Horse Power as per Section 28 234 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 20 1/2" - 33" - 54" Length of Stroke 39" Revs. per minute 80 Dia. of Screw shaft as per rule 11.53" as fitted 12 1/2" Material of screw shaft 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 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 4' 3"

Dia. of Tunnel shaft as per rule 10.32" as fitted 10.5" Dia. of Crank shaft journals as per rule 10.83" as fitted 11" Dia. of Crank pin 11" Size of Crank webs 15 1/2" x 7 1/4" Dia. of thrust shaft under

collars 11" Dia. of screw 14" 0" Pitch of Screw 14" 0" No. of Blades 4 State whether moveable No Total surface 68 sq. ft.

No. of Feed pumps Two Diameter of ditto 3 1/8" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two Diameter of ditto 3 1/8" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Donkey Engines Three Sizes of Pumps 1/2" x 5" x 6" + 9" x 10" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 30 1/2" AFT COFF 3 2 3" FWD COFF 2 2 3" ENG ROOM In Holds, &c. 2 2 3" No. 1, 2 2 3" No. 2, 2 2 3" No. 3

2 2 3" No. 4 with 1 2 3" HOLD WELL.

No. of Bilge Injections 1 sizes 4 1/2" dia Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 2 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 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 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 Engine room gratings.

OILERS, &c.—(Letter for record See separate report.) Manufacturers of Steel See separate report.

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

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

Long. seams Diameter 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

Size 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

Pitch 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

Pitch 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

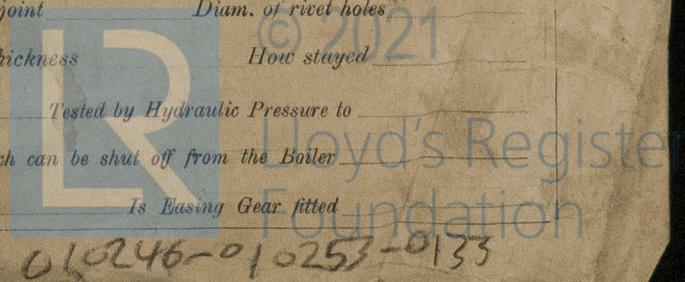
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type 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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - 2 Connecting rod top and 2 Bottom end bolts and nuts, 2 main bearing bolts and nuts. 1 set of Coupling bolts and nuts. 1 set of piston bolts and nuts. 1 set of feed, bilge, air and circulating pump valves. 1 spare propeller. 1 set of piston rings for each cylinder. 2 safety valve springs, one top half of top end connecting rod brasses, one half bottom end bearing. 43 Condenser tubes, 15 boiler tubes. one set of main & donkey check valves. A quantity of assorted bolts & nuts of iron of various sizes. Also spare for oil fuel installation, electric installation etc.

The foregoing is a correct description,

For Geo. T. Grey & Co  
Hull

Manufacturer of main engines

Table with columns for Dates of Survey while building, Dates of Examination of principal parts, and various technical specifications like Cylinders, Slides, Covers, Pistons, Rods, etc.

Table with columns for Completion of pumping arrangements, Completion of fitting sea connections, Main boiler safety valves adjusted, Material of Crank shaft, Material of Tunnel shafts, Material of Steam Pipes, Is an installation fitted for burning oil fuel, Have the requirements of Section 49 of the Rules been complied with, Is this machinery duplicate of a previous case.

General Remarks (State quality of workmanship, opinions as to class, &c. The engines of this vessel have been constructed under special survey and the workmanship and materials are sound and good.

On completion the engines were despatched to Hull for installing on board. When this has been done to the satisfaction of the Society's surveyors at Hull, and all the rule requirements fulfilled, the vessel will in my opinion, be eligible to have the record of L.M.C. with date, inserted in the Register Book.

The engines & boilers have been satisfactorily fitted on board the vessel. On completion they were examined while running full power trials in the Harbour. The machinery throughout is now in good & efficient condition & eligible in my opinion to have the record L.M.C. 6-22 marked in Red in the Society's Register Book. Also fitted for oil fuel F.P above 150°F. The requirements of section 49 of the Rules has been fully complied with. (See letter attached regarding reversing engine) Subject to reversing engine being again tried under steam.

Table with columns for The amount of Entry Fee, Special, Donkey Boiler Fee, Travelling Expenses (if any).

When applied 26 April 21 - Hull 11.14.21  
When received, Son 27.5.21 MR  
Wm. Sindale, Harrogate  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned

THE JUL 18 1922 FRI DEC 28 1923  
Deferred  
FRI JUL 13 1923  
TUES. 9 SEP 1924



Vertical text on the right edge of the page, including 'Date of writ', 'No. in Reg. Book', 'Master', 'Engines', 'Boilers', 'Register', 'MUL', '(Letter', 'Boilers', 'No. of safety', 'Are the', 'Smalle', 'Materi', 'Descri', 'rules', 'boiler', 'Descri', 'plates', 'Top 8', 'small', 'Pitch', 'Area', 'Low', 'Pit', 'wat', 'gira', 'Wo', 'Dis', 'Pit', 'UP', 'Dat', 'Dial', 'L of u bu', 'G', 'The', 'au', 'The', 'fo

Certificate (if required) to be sent to  
The Surveyors are requested not to write on or obliterate the space for Committee's Minute.