

REPORT ON MACHINERY.

No. 82151

Date of writing Report

19

When handed in at Local Office

20 APR 1921

Received at London Office

WED. 27 APR. 1921

Port of

LIVERPOOL

To. in Survey held at Reg. Book

Queensferry

Date, First Survey Sept 23rd / 20. Last Survey April 18th 1921

on the

S.S. Mary Nickerson

(Number of Visits 14)

Master R. S. Denner

Built at Chester

By whom built J. Abdels + Mitchell + Co. Ltd.

Tons Gross 308 Net 2113

Engines made at

Kings Lynn

By whom made A. Dodman + Co.

When built 1920

Boilers made at

Liverpool

By whom made Cammell Laird + Co.

when made 1920

when made 1921

Registered Horse Power

Owners Moffatt + Nickerson

Port belonging to Grimsby

Com. Horse Power as per Section 28

61

Is Refrigerating Machinery fitted for cargo purposes

no.

Is Electric Light fitted

no.

ENGINES, &c. — Description of Engines

London Report No. 83921

Compound, Surface Condensing

No. of Cylinders 2

No. of Cranks 2

Dia. of Cylinders

15" + 31 1/2"

Length of Stroke 24"

Revs. per minute

Dia. of Screw shaft as per rule

Material of screw shaft

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

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

Dia. of Tunnel shaft as per rule

Dia. of Crank shaft journals as per rule

Dia. of Crank pin

Size of Crank webs

Dia. of thrust shaft under

Blades

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

1

Sizes of Pumps

6.4

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

Engine Room

2-3" + 1-3" engine pp. direct.

In Holds, &c. 2-3" + 1-3" at 1-3"

No. of Bilge Injections

1

sizes

3"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

1-3"

Are all the bilge suction pipes fitted with roses yes. Are the roses in Engine room always accessible yes. Are the slides 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 above + at water line.

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.

Are that pipes are carried through the bunkers yes. How are they protected wood casing.

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 worked from

MANUFACTURERS, &c. — (Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers 1226 sq. ft. Is Forced Draft fitted no. No. and Description of Boilers One single ended.

Working Pressure 130 lbs. Tested by hydraulic pressure to 280 lbs. Date of test 1-4-20. No. of Certificate 2118.

Can each boiler be worked separately yes. Area of fire grate in each boiler 34 sq. ft. No. and Description of Safety Valves to each boiler two, direct spring. Area of each valve 4 sq. in. Pressure to which they are adjusted 135 lbs. Are they fitted with easing gear yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 7'-6" Mean dia. of boilers 12'-0" Length 10'-0" 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

Percentage of strength of longitudinal joint rivets 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 top Thickness of plates crown 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

W1653-0047



IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top & 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 6 coupling bolts, 1 set of bilge & feed pump valves, Air & circulating pump valves, main & donkey check valves, safety valves spring, assorted bolts & nuts, iron of various sizes &c.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1920*
During erection on board vessel -- *Sept 22, Oct 13, Nov 8, 24, Dec 9, 23, Jan 4, 18, 24, Feb 2, Mar 7, 22, Apr 8, 18,*
Total No. of visits *14.*

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods
Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller *13.10*
Stern tube Steam pipes tested *(Hull 27-1-21)* Engine and boiler seatings *8.11.20* Engines holding down bolts *4.1.21*
Completion of pumping arrangements *18-4-21* Boilers fixed *23.11.20* Engines tried under steam *18-1-21*
Completion of fitting sea connections *8.11.20* Stern tube *13.10.20* Screw shaft and propeller *8.11.20*
Main boiler safety valves adjusted *18-4-21* Thickness of adjusting washers *P 1/2 S 1/16*

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes *Copper* Test pressure *260 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 machinery— Engine, London Rpt No 33921, Boiler, Liverpool Rpt. No 81928. — has been securely fitted on board & satisfactorily tried under steam, it is eligible in my opinion for classification & to have record of L & C Club No 21. W.P. 130 lbs. — see Secretary's letter E. 8. 13. 15.*

It is submitted that this vessel is eligible for THE RECORD. + LMC. 4.21. 40 130 lbs

Retl 4/5/21

GRK

The amount of Entry Fee ... £ 2 : 0 :
1/5 Special ... £ 3 : 1 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 3 : 17 :
When applied for, **26 APR 1921**
When received, *30.4.21*

A. J. Bassett
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL, 26 APR 1921

Assigned *L No 6 4:21*

When fee is paid