

## REPORT ON MACHINERY.

No. 13984

Received at London Office

TUE 4 JAN. 1921

Date of writing Report

19

When handed in at Local Office

3/12/10 Port of Newcastle on Tyne

No. in Survey held at  
Reg. Book.

Newcastle on Tyne

Date, First Survey April 8<sup>th</sup> 1919 Last Survey December 20<sup>th</sup> 1920

(Number of Visits 98)

on the

S.S. "Monte Negro"

Master

Built at

Newcastle

By whom built

Northumberland S.B. Co. Ltd

Tons { Gross 5889  
Net 3746  
When built 1920

Engines made at

Newcastle

By whom made

Wallend Shipway &amp; Engineering Co. Ltd

when made

1920

Boilers made at

-do

By whom made

-do

when made

1920

Registered Horse Power

Owners

Consorzio Veneziano

Port belonging to

Venice

Nom. Horse Power as per Section 28

571.8

572

Is Refrigerating Machinery fitted for cargo purposes

No.

Is Electric Light fitted

Yes.

ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27"-45"-75"

Length of Stroke 51"

Revs. per minute 69

Dia. of Screw shaft

as per rule 14.6

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 5'-6"

Dia. of Tunnel shaft

as per rule 13.68

Dia. of Crank shaft journals

as per rule 14.37

Dia. of Crank pin 14 5/8"

Size of Crank webs 22 5/8" x 9 5/8"

Dia. of thrust shaft under

collars 14 5/8"

Dia. of screw 19'-0"

Pitch of Screw 17'-3"

No. of Blades 4

State whether moveable

No

Total surface 113.5 sq ft

No. of Feed pumps 2

Wear

Diameter of ditto 8"

Stroke 21"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 4 3/4"

Stroke 26"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 2

Sizes of Pumps 10"x12"x10"

7 1/2"x5"x6"

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

In Engine Room &amp; Storehold

4-3 1/2"

In Holds, &amp;c.

nos: 1, 2, 3, 4, each 2-3 1/2"

Deep Tank 2-3 1/2"

Tunnel 1-2 1/2"

No. of Bilge Injections 1

size 9"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room &amp; size

Yes, 3 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

None

Are all connections with the sea direct on the skin of the ship

No

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

Yes

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, &amp;c.—(Letter for record)

S.

Manufacturers of Steel

John Spencer

Total Heating Surface of Boilers 8556 sq ft

Is Forced Draft fitted

Yes

No. and Description of Boilers 3 Single Ended

Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs

Date of test 16.11.20

No. of Certificate 9483

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 64 sq ft

No. and Description of Safety Valves to

each boiler 2 Spring Loaded

Area of each valve 11.045 sq ft

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 2'-0"

Mean dia. of boilers 15'-6 1/4"

Length 12'-0"

Material of shell plates steel

Thickness 1 1/32"

Range of tensile strength 30-34 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams D.R.-L.J.

long. seams

D.B.S. Riveted

Diameter of rivet holes in long. seams 1 5/16"

Pitch of rivets 8 15/16"

Lap of plates or width of butt straps 19 3/8"

Per centages of strength of longitudinal joint

rivets 85.3

plate 92.5

Working pressure of shell by rules 188

Size of manhole in shell 16"x12"

Size of compensating ring

McNeill's

No. and Description of Furnaces in each boiler 3 Marisens

Material steel

Outside diameter 50 5/8"

Length of plain part

top 5"

bottom 5"

Thickness of plates

crown 1 1/32"

bottom 1 1/32"

Description of longitudinal joint welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules 188 lbs

Combustion chamber plates

Material steel

Thickness: Sides 2 1/32"

Back 2 1/32"

Top 2 1/32"

Bottom 7/8"

Pitch of stays to ditto: Sides 9"x9"

Back 9"x8 5/8"

Top 8 1/2"x8 1/4"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules 182 lbs

Material of stays steel

Area at smallest part 2.030 sq ft

Area supported by each stay 81 sq ft

Working pressure by rules 226 lbs

End plates in steam space

Material steel

Thickness 1 5/32"

Pitch of stays 20"x15 3/4"

How are stays secured D.N.

Working pressure by rules 184

Material of stays steel

Area at smallest part 6.10 sq ft

Area supported by each stay 315 sq ft

Working pressure by rules 200 lbs

Material of Front plates at bottom steel

Thickness 1"

Material of Lower back plate steel

Thickness 2 9/32"

Greatest pitch of stays 14"

Working pressure of plate by rules 205 lbs

Diameter of tubes 2 1/2"

Pitch of tubes 3 3/4"x3 3/4"

Material of tube plates steel

Thickness: Front 1"

Back 1 3/16"

Mean pitch of stays 9 5/8"

Pitch across wide water spaces 13 1/4"

Working pressures by rules 204 lbs

Girders to Chamber tops: Material steel

Depth and

thickness of girder at centre 8 7/8"x1 1/2"

Length as per rule 33 1/32"

Distance apart 8 1/2"

Number and pitch of stays in each 3-8 1/4"

Working pressure by rules 181 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

None

Date of Approval of Plan

Yes

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

Is Easing Gear fitted

Diameter of Safety Valve

Pressure to which each is adjusted

Lloyd's Register  
Foundation



IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

✓

SPARE GEAR. State the articles supplied:— 1 C.P. propeller. 2 top end & 2 bottom end bolts & nuts. 2 Main bearing both tuns. 6 Coupling both tuns. Set of feed pump valves. 2 bilge pump valves. 2 Cut of iron plate. 1 cut of iron bars. 100 assorted both tuns. 50 Condenser ferrules. 1 doz. gauge glasses. 4 doz. india rubber washers. Set of feed donkey valves. Set of ballast donkey valves. 12 Piston both 100 plain forebars. 2 plain forebar patterns.

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

J. C. Henderson.

Manufacturer.

1919.  
Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

Is the approved plan of main boiler forwarded herewith forwarded with 828 report.

Dates of Examination of principal parts—Cylinders 23/3/20 Slides 29/4/20 Covers 8/10/19 Pistons 4/12/19 Rods 10/10/19  
Connecting rods 10/10/19 Crank shaft 9/1/20 Thrust shaft 23/10/19 Tunnel shafts 19/3/20 Screw shaft 9/12/19 Propeller 6/10/20  
Stern tube 6/10/20 Steam pipes tested 25/5 + 14/6/20 Engine and boiler seatings 17/12/20 Engines holding down bolts 17/12/20  
Completion of pumping arrangements 18/12/20 Boilers fixed 17/12/20 Engines tried under steam 18/12/20  
Completion of fitting sea connections 10/11/20 Stern tube 10/11/20 Screw shaft and propeller 18/12/20  
Main boiler safety valves adjusted 18/12/20 Thickness of adjusting washers P.B.H. P. 5/16 S. 3/8 C.B.H. P. 3/8 S. 7/16 S.B.H. P. 5/16 S. 7/16  
Material of Crank shaft Steel Identification Mark on Do. J.F. 1/20 Material of Thrust shaft Steel Identification Mark on Do. J.F. 10/19  
Material of Tunnel shafts Identification Marks on Do. J.F. 3/20 Material of Screw shafts Identification Marks on Do. J.F. 12/19  
Material of Steam Pipes W. Iron Test pressure 540 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

No. 828, 829

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

The engines & boilers of this vessel were built under special survey, & the materials & workmanship are good.

After erecting in place on board, they were examined under steam & found to work satisfactorily.

The machinery throughout is now in good & efficient condition and in my opinion is eligible to have the record of L.M.C. 12.20 marked in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 12.20 FD

6/1/21

The amount of Entry Fee

£ 3

When applied for.

Special

£ 48

2 - JAN 1921

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any) £

£

15-1-21

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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