

REPORT ON MACHINERY.

Received at London Office SAT. 23 APR. 1921

Date of writing Report April 1921 When handed in at Local Office 11 April 1921 Port of MIDDLESBROUGH

No. in Survey held at Middlesbrough Date, First Survey 17 Dec. 1919 Last Survey 4 April 1921
Reg. Book. 82222 on the Steel screw steamer "Virginia Peirce" (Number of Visits 92)

Master _____ Built at Middlesbrough By whom built Hunness Shipbuilding Co. Ltd. Tons 5820
Engines made at Middlesbrough By whom made Richardsons Westgarth & Co. Ltd. when made 1921
Boilers made at H By whom made H when made 1921

Registered Horse Power _____ Owners Peirce Bros Port belonging to Naples
Nom. Horse Power as per Section 28 573 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Inverted Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24" 45" 45" Length of Stroke 51" Revs. per minute 43 Dia. of Screw shaft as per rule 15" as fitted 15 1/2" Material of screw shaft Iron

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 _____ Length of stern bush 5'-2"

Dia. of Tunnel shaft as per rule 13.64" as fitted 13 3/4" Dia. of Crank shaft journals as per rule 14.32" as fitted 14 7/8" Dia. of Crank pin 15" Size of Crank webs 29" x 9 3/4" Dia. of thrust shaft under collars 16 1/4" Dia. of screw 14'-9" Pitch of Screw 18'-0" No. of Blades 4 State whether moveable No Total surface 100 sq ft

No. of Feed pumps 2 Diameter of ditto 8" x 10 1/2" Stroke 21" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 8" x 6" x 8" 10" x 12" x 10" 14" x 14" x 8" No. and size of Suctions connected to both Bilge and Donkey pumps _____

In Engine Room 2 of 3 1/2" and 2 of 3 1/2" direct to Tunnel Well In Holds, &c. 2 of 3 1/2" in each hold and 1 of 2 1/2"

No. of Bilge Injections one size 8" Connected to condenser, or to circulating pump via pumps a separate Donkey Suction fitted in Engine room & size 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 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

Dates of examination of completion of fitting of Sea Connections 20. 10. 20 of Stern Tube 28. 1. 21 Screw shaft and Propeller 2. 2. 21

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel John Spencers & Sons Ltd.

Total Heating Surface of Boilers 8080 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 S.E. Multitubular Cylindrical
Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 5th Aug. 1920 No. of Certificate 6144

Can each boiler be worked separately Yes Area of fire grate in each boiler 62.5 sq ft No. and Description of Safety Valves to each boiler 2 Direct Spring loaded Area of each valve 12.56 sq in 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 18" Int Mean dia. of boilers 15'-6 1/2" Length 12'-1 1/8" Material of shell plates Steel

Thickness 1 1/4" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams LR lap long. seams VA.A.B.S. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 14 1/2"

Per centages of strength of longitudinal joint rivets 86.08 plate 85.29 Working pressure of shell by rules 181 lbs Size of manhole in shell 16 1/2" x 13"

Size of compensating ring 30 1/2 x 29" No. and Description of Furnaces in each boiler 3 Heightless Material Steel Outside diameter 49 3/4"

Length of plain part top bottom Thickness of plates top bottom 19/32 Description of longitudinal joint Weld No. of strengthening rings _____

Working pressure of furnace by the rules 190 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/32" Back 1/16" Top 19/32" Bottom 23/32"

Pitch of stays to ditto: Sides 1/2 x 6 5/8" Back 8 3/8 x 8" Top 1 1/2 x 6 5/8" If stays are fitted with nuts or riveted heads riveted heads Working pressure by rules 180 lbs

Material of stays Steel Diameter at smallest part 1 3/8" Area supported by each stay 49 sq in Working pressure by rules 193 lbs End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 19 1/2 x 13 3/4" How are stays secured hubs & washers Working pressure by rules 192 lbs Material of stays Steel

Diameter at smallest part 6 1/4" Area supported by each stay 316 sq in Working pressure by rules 206 lbs Material of Front plates at bottom Steel

Thickness 5/16" Material of Lower back plate Steel Thickness 3/16" Greatest pitch of stays 1 3/4" x 8" Working pressure of plate by rules 181 lbs

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates Steel Thickness: Front 15/16" Back 13/16" Mean pitch of stays 10 3/4"

Pitch across wide water spaces 13 1/2" Working pressures by rules 185 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 3/4" x 1 1/2" Length as per rule 32 3/4" Distance apart 4 1/4" Number and pitch of stays in each 3 @ 6 5/8"

Working pressure by rules 195 lbs Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____

If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____

Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Propeller and screw shaft, 2 Top end bolts & nuts; 2 Bottom end bolts & nuts; 2 main bearing bolts & nuts; 1 set of Coupling bolts & nuts; Centrifugal pump impeller shaft; 16 Condenser tubes; 1 set of Feed pump valves; 1/2 set of Air pump valves; 1 set of valves & seats for Bilge pumps; 1 main and 1 auxiliary feed check valve; 1 Yellin bucket; 3 Safety valve springs; 1 pair of Bottom end bushes; 2 pair of Top end bushes; Assorted bolts & nuts, rod & sheet steel.

The foregoing is a correct description,

RICHARDSON'S WESTGARTH & Co., Ltd.

William Westgarth
General Manager

Manufacturer.

Dates of Survey while building: During progress of work in shops: Dec 27, 1919, 1920, Jan 14, 19, Dec 1, 3, 29, Apr 1, 22, 26, 30, May 5, 14, 18, Jun 2, 8, 11, 16, 19, 22, 29, Jul 2, 6, 13, 19, 24, 29, Aug 4, 9, 24, Sep 2, 9, 16, 23, 30, Oct 7, 12, 15, 19, 26, 31, Nov 1, 3, 9, 16, 23, 30, Dec 1, 3, 6, 9, 16, 23, 31, 1921, Jan 5, 7, 17, 24, 25, 27, 28. Total No. of visits 92. Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 9.11.20 Slides 16.12.20 Covers 12.11.20 Pistons 12.11.20 Rods 9.11.20 Connecting rods 12.11.20 Crank shaft 14.9.20 Thrust shaft 24.9.20 Tunnel shafts 24.9.20 Screw shaft 28.1.21 Propeller 28.1.21 Stern tube 9.11.20 Steam pipes tested 15.16.2.21 Engines and boiler seatings 8.11.20 Engines holding down bolts 14.2.21 Completion of pumping arrangements 8.3.21 Boilers fixed 14.2.21 Engines tried under steam 8.3.21 Main boiler safety valves adjusted 8.3.21 Thickness of adjusting washers P.H. PV 9/16 SV 1/32 Cut. 1/4 PV 1/2 SV 1/2 1/16 PV 1/32 SV 1/16 Material of Crank shaft Steel Identification Mark on Do. 6198 AB. Material of Thrust shaft Steel Identification Mark on Do. 4863N. Material of Tunnel shafts Steel Identification Marks on Do. 4863N. Material of Screw shafts Iron Identification Marks on Do. 6216 R.D.S. Material of Steam Pipes Lap welded steel Test pressure 640 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 “Citta di Messina”

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been built under Special Survey; the workmanship and materials are good; it has been efficiently fitted on board and proved satisfactory under working conditions.
The vessel is eligible in my opinion to have the notation of L.M.C. H.21 made in the Register Books.

It is submitted that this vessel is eligible for THE RECORD. +LME. 4.21 FD CL

RCM
27/4/21

The amount of Entry Fee ... £ 6 : 0 :
Special ... £ 103 : 13 :
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : - :
When applied for, 22.4.1921
When received, 13/5/21

Committee's Minute FRI. APR. 29 1921
Assigned + L.M.C. H.21
F.D. C.L.

The Burgees are requested not to write on or below this space for Committee's Minute.

Rpt. 13.

REP

Port of M
No. in Reg. Book 82322
Owners F
Yard No. 5

DESCRIPTION OF Dynamo, Engine,
Capacity of Dynamo
Where is Dynamo
Position of Main S
Positions of auxili
81" Engine

If fuses are fitted circuits Yes
If vessel is wired o
Are the fuses of n
Are all fuses fitted
are permanent
Are all switches an
Total number of lig
A Navigation
B Accommodation
C Crew
D Engine room
E Blusters
2 Mast head
2 Side
5

If arc lights, what
Where are the swi

DESCRIPTION OF
Main cable carrying
Branch cables carry
Branch cables carry
Leads to lamps carry
Cargo light cables car

DESCRIPTION OF
Lead covered
Announced &
Joints in cables, how
covered w
Are all the joints of
positions, none
Are there any joints
How are the cables
under-side

