

# REPORT ON MACHINERY

No. 8120.

TUE. SEP. 30. 1913

Received at London Office

Date of writing Report 27.7.13 When handed in at Local Office 29.9.13 Port of Middlesbrough

No. in Survey held at Stockton-on-Tees Date, First Survey 19th May 1913 Last Survey 20th Sept 1913

Reg. Book. on the Steel Screw Steamer "Caldy" (Number of Visits) (S.S.N. 634) Tons Gross 4221.21  
Net 2619.16

Master Richard Care Built at Stockton By whom built Richardson Duck & Co When built 1913

Engines made at Stockton By whom made Messrs Blair & Co Lim (No. 1772) when made 1913

Boilers made at Stockton By whom made Messrs Blair & Co Lim when made 1913

Registered Horse Power \_\_\_\_\_ Owners Fargrove Steam Navigation Co. Ltd Port belonging to London

Nom. Horse Power as per Section 28 394 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Tri-compound No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 26-42-70 Length of Stroke 48 Revs. per minute 65 Dia. of Screw shaft as per rule 14.48 Material of iron  
as fitted 15.2 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

in the propeller boss yes If the liner is in more than one length are the joints burned in one 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 tight fit If two

liners are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Length of stern bush 5'-4"

Dia. of Tunnel shaft as per rule 12.98 Dia. of Crank shaft journals as per rule 13.63 Dia. of Crank pin 14.2 Size of Crank webs 28 1/2 x 9 1/2 Dia. of thrust shaft under

collars 14.2 Dia. of screw 17'-6" Pitch of Screw 17'-3" No. of Blades 4 State whether moceable no Total surface 96 sq ft

No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 34 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 5" Stroke 34 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps Ballast = 9 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 @ 3 1/2" & Dry tank, one @ 3 1/2" In Holds, &c. 2 @ 3 1/2" in each hold

Tunnel well one @ 2 1/2"

No. of Bilge Injections 1 sizes 7" Connected to condenser or circulating pump yes Is a separate Donkey Suction fitted in Engine room of size yes - 4"

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 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 suctions to forward holds How are they protected wood ceiling

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 29.7.13 of Stern Tube 29.7.13 Screw shaft and Propeller 16.8.13

Is the Screw Shaft Tunnel watertight see hull plat Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Messrs John Muncey & Sons Lim.

Total Heating Surface of Boilers 6435 Is Forced Draft fitted no No. and Description of Boilers 3 Single ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 14.8.13 No. of Certificate 5140

Can each boiler be worked separately yes Area of fire grate in each boiler 59 1/2 sq ft No. and Description of Safety Valves to

each boiler 2 direct spring Area of each valve 7.07 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 3'-0" Mean dia. of boilers 15'-3" 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 2-Riv lap

long. seams 2B-3 Riv Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 18 5/8 x 1 1/2"

Per centages of strength of longitudinal joint 5 Rivets per pitch rivets 86.3 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12"

Size of compensating ring 7 1/2 x 1 1/2" No. and Description of Furnaces in each boiler 3 Dighton Material steel Outside diameter 45 7/8"

Length of plain part top Thickness of plates bottom 9" Description of longitudinal joint weld No. of strengthening rings \_\_\_\_\_

Working pressure of furnace by the rules 192 Combustion chamber plates: Material steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"

Pitch of stays to ditto: Sides 8 3/4 x 10 Back 9 3/4 x 9 Top 10 x 8 3/4 stays are fitted with nuts or riveted heads nuts Working pressure by rules 185

Material of stays steel Diameter at smallest part 1.99 Area supported by each stay 88.75 Working pressure by rules 202 End plates in steam space:

Material steel Thickness 1 1/2" Pitch of stays 18 1/2" (20 1/2") How are stays secured nuts & washers Working pressure by rules 193 Material of stays steel

Diameter at smallest part 7.24 Area supported by each stay 390 Working pressure by rules 193 Material of Front plates at bottom steel

Thickness 1 1/2" Material of Lower back plate steel Thickness 1 1/2" Greatest pitch of stays 14 1/2" x 9" Working pressure of plate by rules 252

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 11 1/2"

Pitch across wide water spaces 14 1/2" Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 7 3/4" x 1 3/4" Length as per rule 29 Distance apart 10" Number and pitch of stays in each 2 @ 8 3/4"

Working pressure by rules 191 Superheater or Steam chest; how connected to boiler none 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 \_\_\_\_\_

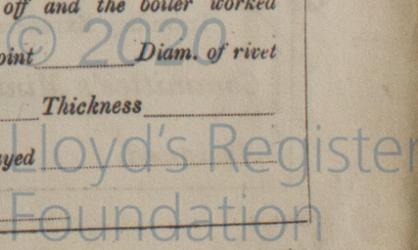
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