

REPORT ON MACHINERY.

No. 22455

Port of Sunderland

Received at London Office 11th 5 06 1898

No. in Survey held at Sunderland Date, first Survey 20th May, 1905 Last Survey 2nd October, 1905

Reg. Book. 521 on the Steel Screw Steamer Hermes (Number of Visits 52)

Master L. A. Simonsen 98.05 Built at Sunderland By whom built J. P. Thompson & Sons Ltd Tons Gross 3890
Net 2526 When built 1905

Engines made at Sunderland By whom made H. Clark & Co when made 1905

Boilers made at do By whom made do when made 1905

Registered Horse Power _____ Owners Brunsgaard & Jøsteraud & Co Port belonging to Drammen

Nom. Horse Power as per Section 28 329 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

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

tilted amidships Dia. of Cylinders 25.41.67 Length of Stroke 45 Revs. per minute 65 Dia. of Screw shaft as per rule 14 Material of Iron
as fitted 14.5 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 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'-8"

Dia. of Tunnel shaft as per rule 12.4 Dia. of Crank shaft journals as per rule 13 Dia. of Crank pin 13 Size of Crank webs 8.5 x 8.5 Dia. of thrust shaft under

collars 13.5 Dia. of screw 17.3 Pitch of screw 17-0 No. of blades 4 State whether moveable no Total surface 88.5

No. of Feed pumps 2 Diameter of ditto 3.4 Stroke 26 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 4.4 Stroke 26 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps Feed 7.5 x 4.5 x 7 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 x 3.5 dia 1 x 4 dia 1 x 4.5 dia In Holds, &c. 1 in rack 3.5 dia 1 in tunnel 2.5 dia

No. of bilge injections 1 sizes 5.5 Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes 4.5 dia

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 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

When were stern tube, propeller, ~~screw shaft~~, and all connections examined on days 31.8.05 Is the screw shaft tunnel watertight yes

Is it fitted with a watertight door yes worked from top platforms

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 5100 Is forced draft fitted no

No. and Description of Boilers 2 Single ended wall tubes Working Pressure 180 lb Tested by hydraulic pressure to 360 lb

Date of test 8.9.05 Can each boiler be worked separately yes Area of fire grate in each boiler 74 No. and Description of safety valves to

each boiler two spring loaded Area of each valve 10.32 Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 16 Mean dia. of boilers 15-9.5 Length 11-0 Material of shell plates yes

Thickness 1.7 Range of tensile strength 28.5-32 Are they welded or flanged no Descrip. of riveting: cir. seams D.C. lap long. seams D.P. 5/6

Diameter of rivet holes in long. seams 1.8 Pitch of rivets 9.5 Lap of plates or width of butt straps 20.5

Per centages of strength of longitudinal joint rivets 95.6 Working pressure of shell by rules 181.6 Size of manhole in shell 8.6 x 13

Size of compensating ring flanged No. and Description of Furnaces in each boiler H. Plain Material yes Outside diameter 42

Length of plain part top 78.4 Thickness of plates bottom 6.4 Description of longitudinal joint welded No. of strengthening rings yes

Working pressure of furnace by the rules 180 Combustion chamber plates: Material yes Thickness: Sides 3.5 Back 3 Top 1.3 Bottom 1

Pitch of stays to ditto: Sides 10.5 x 9.5 Back 11.5 x 9.5 Top yes If stays are fitted with nuts or riveted heads nuts Working pressure by rules 187

Material of stays yes Diameter at smallest part 1.59 Area supported by each stay 93.106 Working pressure by rules 195 End plates in steam space: yes

Material yes Thickness 1.64 Pitch of stays 23 x 2.5 How are stays secured nuts Working pressure by rules 180.7 Material of stays yes

Diameter at smallest part 3.41 Area supported by each stay 500 Working pressure by rules 182 Material of Front plates at bottom yes

Thickness 7 Material of Lower back plate yes Thickness 5 Greatest pitch of stays 15.5 Working pressure of plate by rules 185

Diameter of tubes 3.7 Pitch of tubes 4.5 x 4.8 Material of tube plates yes Thickness: Front 1.64 Back 3 Mean pitch of stays 10.8

Pitch across wide water spaces 14.4 Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 14 x 13 Length as per rule yes Distance apart yes Number and pitch of Stays in each yes

Working pressure by rules _____ Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked

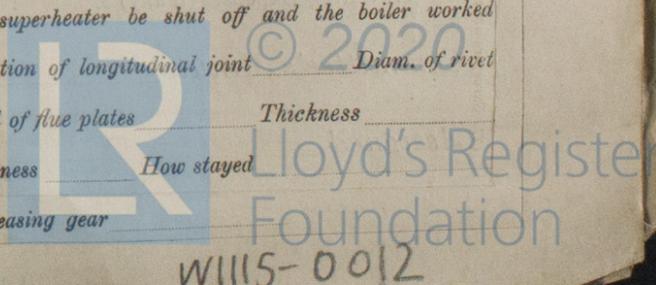
separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet

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 _____

W1115-0012



DONKEY BOILER— No. 1 Description Particulars appended

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers _____

enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— 1 Propeller & shaft. 2 each bolts & nuts for top & bottom ends & main bearings, set of coupling bolts, spare piston rings & valves for all pumps bolts nuts etc.

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED. James C. Clark Manufacturers of main engine works only

Dates of Survey while building { During progress of work in shops - 1905: May 26, June 6, 20, 26, July 4, 13, 17, 18, 19, 24, 25, 28 Aug 2, 3, 8, 14, 15, 18, 22, 24, 25, 30, 31, Sept 1, 4, 5, 8, 19, 23, 25, 28, Oct 3, Total No. of visits 32

Is the approved plan of main boiler forwarded herewith Yes " " " donkey " " " Yes

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

The machinery of this vessel has been constructed under special survey, the material & workmanship found sound & tested in accordance with the rules & eligible in my opinion for Classification with record of L.M.C. 10.05.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 10.05.

Resd. 5.10.05. E.S. 5.10.05.

E. J. Stoddart. Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee.. £ 3 : : When applied for, Special .. £ 36 : 9 : 4.10.1905 Donkey Boiler Fee .. £ : : When received, Travelling Expenses (if any) £ : : 5.10.1905

Committee's Minute FRI. 6 OCT 1905

Assigned + LMB 1005

Certificate (if required) to be sent to _____

