

REPORT ON MACHINERY.

No. 14645.

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Date of writing Report 5th May 1913 When handed in at Local Office 7th May 1913 Port of West Hartlepool

No. in Survey held at West Hartlepool Date, First Survey 28th June 1912 Last Survey 30th April 1913
Reg. Book. on the steel screw steamer "Dido" (Number of Vials 52)

Master Built at West Hartlepool By whom built Furness B.P. & S. & C. Ld. When built 1913

Engines made at Hartlepool By whom made Richardson, Westgarth & Co. Ld. when made 1913

Boilers made at Hartlepool By whom made Richardson, Westgarth & Co. Ld. when made 1913

Registered Horse Power 602 Owners Furness Withy & Co. Ld. Port belonging to W. Hartlepool

Nom. Horse Power as per Section 28 602 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Riple Expansion No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 28-46-44 Length of Stroke 48 Revs. per minute 80 Dia. of Screw shaft as per rule 14.93 Material of rust steel
as fitted 15 1/4 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 — 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 5-1

Dia. of Tunnel shaft as per rule 13.7 Dia. of Crank shaft journals as per rule 14.39 Dia. of Crank pin 14 3/4 Size of Crank webs 9 1/2 x 22 1/2 Dia. of thrust shaft under collars 15 1/4 Dia. of screw 17-6 Pitch of Screw 17-6 No. of Blades four State whether moceable no Total surface 95 1/2

No. of Feed pumps two Diameter of ditto 4 1/4 Stroke 24 Can one be overhauled while the other is at work yes

No. of Bilge pumps two Diameter of ditto 4 3/4 Stroke 24 Can one be overhauled while the other is at work yes

No. of Donkey Engines two Sizes of Pumps 11 x 100 and 5 x 60 No. and size of Suction, connected to both Bilge and Donkey pumps in Engine Room four 3 1/2 dia, Tunnel mill 2 1/2 dia In Holds, &c. Eight 3 1/2 dia

No. of Bilge Injections one sizes 9 1/2 Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room of 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 no

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 on wt.

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 23/11/12 of Stern Tube 23/11/12 Screw shaft and Propeller 18/12/12

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer Tom. Ld. & Leds. Iron C. Ld.

Total Heating Surface of Boilers 9142 1/2 Is Forced Draft fitted yes No. and Description of Boilers Three S.S. Multitubular, 4 1/2 ft

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 22/11/12 No. of Certificate 3308

Can each boiler be worked separately yes Area of fire grate in each boiler 69.12 1/2 No. and Description of Safety Valves to each boiler no, direct spring Area of each valve 14.2 1/2 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 (incl. Mean dia. of boilers 16-6 Length 12-0 Material of shell plates steel

Thickness 1 15/32 Range of tensile strength 28 3/4 to 32 Tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR & TR long. seams DRS-TR Diameter of rivet holes in long. seams 1 15/32 Pitch of rivets 10 Lap of plates or width of butt straps 2 1/4

Per centages of strength of longitudinal joint rivets 86 plate 85.3 Working pressure of shell by rules 209.5 lbs Size of manhole in shell 16 1/2 x 13

Size of compensating ring 8 1/2 x 1 15/32 No. and Description of Furnaces in each boiler no, Dispersion Material steel Outside diameter 43 3/4

Length of plain part — Thickness of plates — Description of longitudinal joint welded No. of strengthening rings —

Working pressure of furnace by the rules 201 lbs Combustion chamber plates: Material steel Thickness: Sides 19/32 Back 19/32 Top 19/32 Bottom 13/16

Pitch of stays to ditto: Sides 7 3/4 x 8 Back 8 1/8 x 8 1/8 Top 8 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 lbs

Material of stays steel Diameter at smallest part 1 3/8 Area supported by each stay 8 1/8 x 8 1/8 Working pressure by rules 180 lbs End plates in steam space: Material steel Thickness 1 1/2 Pitch of stays 22 1/2 x 16 1/2 How are stays secured DN Working pressure by rules 180 lbs Material of stays steel

Diameter at smallest part 3 3/8 Area supported by each stay 16 1/2 x 23 1/2 Working pressure by rules 208 lbs Material of Front plates at bottom steel

Thickness 1 1/8 Material of Lower back plate steel Thickness 1 3/16 Greatest pitch of stays 13 1/2 x 8 1/8 Working pressure of plate by rules 184 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 3/4 Mean pitch of stays 9 3/8

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 1/2 x 1 3/4 Length as per rule 32 1/2 Distance apart 8 1/2 Number and pitch of stays in each Three 7 1/2

Working pressure by rules 181.5 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 —



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