

# REPORT ON MACHINERY.

No. 46.035

443

3.142

Port of Newcastle-on-Tyne

Glasgow

No. 21163.

Received at Leith Office Oct 20 1903

No. in Survey held at Newcastle & Glasgow

Date, first Survey Feb 11

Last Survey Oct 20 1903

Reg. Book.

on the Steam Screw Trawler "Princess Victoria"

(Number of Visits 36)

Tons { Gross 201.64  
Net 53.57  
When built 1903

Master \_\_\_\_\_ Built at N. Shields By whom built Smiths Dock Co

Engines made at Scotbridge By whom made W. V. V. Lidgerwood when made 1903

Boilers made at Newcastle By whom made Walland Shipway & Coy when made 1903

Registered Horse Power \_\_\_\_\_ Owners The Dods Steam Towing Co Ltd Port belonging to Aberdeen.

Nom. Horse Power as per Section 28 685 Is Refrigerating Machinery fitted no Is Electric Light fitted no

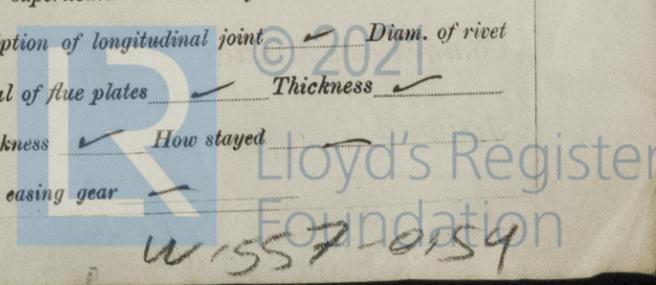
**ENGINES, &c.**—Description of Engines Triple expansion screw. No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12" 20" 33" Length of Stroke 23" Revs. per minute \_\_\_\_\_ Dia. of Screw shaft 7.25" Material of screw shaft Iron  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no 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 no Length of stern bush 2' 6"  
 Dia. of Tunnel shaft 6.75" Dia. of Crank shaft journals 6.41" Dia. of Crank pin 6.75" Size of Crank webs 4' 4" Dia. of thrust shaft under collars 6.75" Dia. of screw 8-6" Pitch of screw 11-3" No. of blades 4 State whether moveable no Total surface 31 sq ft  
 No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 11 1/2" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 11 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines 1 Sizes of Pumps 5 1/4" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps \_\_\_\_\_  
 In Engine Room 2 - 2" In Holds, &c. 2 - 2"

No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump CP Is a separate donkey suction fitted in Engine room & size 4 in 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 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 in dry dock never Is the screw shaft tunnel watertight yes  
 Is it fitted with a watertight door yes worked from yes

**BOILERS, &c.**— (Letter for record no) Total Heating Surface of Boilers 11205 Is forced draft fitted no  
 No. and Description of Boilers One simple Endless Working Pressure 180 lb Tested by hydraulic pressure to 260 lb  
 Date of test 15/5/03 Can each boiler be worked separately yes Area of fire grate in each boiler 475 No. and Description of safety valves to each boiler Two Direct Spring Area of each valve 4.9" 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 18" Mean dia. of boilers 12-0" Length 10-3 Material of shell plates S  
 Thickness 3/32 Range of tensile strength 29-32 Are they welded or flanged no Descrip. of riveting: cir. seams Lap 1/4" long. seams 1/4" 1/2" 3/4"  
 Diameter of rivet holes in long. seams 1 1/32 Pitch of rivets 7 3/8 Lap of plates or width of butt straps 15 3/8"  
 Per centages of strength of longitudinal joint \_\_\_\_\_ rivets \_\_\_\_\_ Working pressure of shell by rules 181 Size of manhole in shell 16 x 12  
 Size of compensating ring no No. and Description of Furnaces in each boiler 3 Plain Material S Outside diameter 39"  
 Length of plain part 36-6" Thickness of plates 3 1/4" Description of longitudinal joint welded No. of strengthening rings none  
 Working pressure of furnace by the rules 182 Combustion chamber plates: Material S Thickness: Sides 3/32 Back 2/32 Top 2/32 Bottom 2/32  
 Pitch of stays to ditto: Sides 9 3/4 x 8 3/8 Back 9 3/8 x 8 3/8 Top 9 3/4 x 8 3/8 If stays are fitted with nuts or ripeted heads nuts Working pressure by rules 180  
 Material of stays Iron Diameter at smallest part 1 5/8 Area supported by each stay 82.7 Working pressure by rules 186 End plates in steam space: \_\_\_\_\_  
 Material S Thickness 1 3/16 Pitch of stays 19 1/2 x 17 3/8 How are stays secured dr. riv. Working pressure by rules 181 Material of stays S  
area at smallest part 7.24" Area supported by each stay 347" Working pressure by rules 207 Material of Front plates at bottom S  
 Thickness 1" Material of Lower back plate S Thickness 3/8 Greatest pitch of stays 13 1/8" Working pressure of plate by rules 195  
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4 x 4 5/8 Material of tube plates S Thickness: Front 1" Back 3/4" Mean pitch of stays 9 1/2"  
 Pitch across wide water spaces 14" Working pressures by rules 183 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 1/2" + (1 1/2") Length as per rule 28' Distance apart 9 3/4 Number and pitch of Stays in each 2, 8 3/8  
 Working pressure by rules 181 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes  
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes  
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

[2000-7-02-Copyable Ink.]



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