

REPORT ON MACHINERY.

Port of **NEWCASTLE-ON-TYNE** Received at London Office **THUR, 29 DEC 1898**

Survey held at **South Shields** Date, first Survey **8th Aug** Last Survey **Dec 16th 1898**
(Number of Visits)

on the **Steam Trawler "Doreen"** Tons **159**
Gross
Net

Built at **S. Shields** By whom built **J. T. Eltringham & Co** When built **1898**

made at **S. Shields** By whom made **G. J. Gray** when made **1898**

made at **S. Shields** By whom made **J. T. Eltringham & Co** when made **1898**

indicated Horse Power **47** Owners **Newcastle Fish Co** Port belonging to **Sunderland**
Horse Power as per Section 28 **54** Is Electric Light fitted **No.**

ENGINES, &c.—Description of Engines **Compound** No. of Cylinders **2** No. of Cranks **2**
 Diameter of Cylinders **16" 34"** Length of Stroke **22"** Revolutions per minute **100** Diameter of Screw shaft **6 3/4"**
 Diameter of Tunnel shaft **6 3/4"** Diameter of Crank shaft journals **6 3/8"** Diameter of Crank pin **6 3/8"** Size of Crank webs **9 3/4" x 4 1/4"**
 Diameter of screw **8-0"** Pitch of screw **11-6"** No. of blades **4** State whether moveable **No** Total surface **195**
 No. of Feed pumps **1** Diameter of ditto **2 3/8"** Stroke **11"** Can one be overhauled while the other is at work
 No. of Bilge pumps **1** Diameter of ditto **3"** Stroke **11"** Can one be overhauled while the other is at work
 No. of Donkey Engines **1** Sizes of Pumps **4 1/2" + 2 3/4" + 4"** No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room **Two, 2' dia.** In Holds, &c. **one in fore hold + one in after**
 No. of bilge injections **1** sizes **3"** Connected to condenser, or to circulating pump **No** Is a separate donkey suction fitted in Engine room & size **4 1/2" 2"**
 Are all the bilge suction pipes fitted with roses **No** Are the roses in Engine room always accessible **No** Are the sluices on Engine room bulkheads always accessible **No**
 Are all connections with the sea direct on the skin of the ship **No** Are they Valves or Cocks **Both**
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates **No** 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 **No** Are the blow off cocks fitted with a spigot and brass covering plate **No**
 How are they protected
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times **No**
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges **No**
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock **No** Is the screw shaft tunnel watertight **No**
 Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record **5**) Total Heating Surface of Boilers **9559** Is forced draft fitted **No**
 No. and Description of Boilers **two cylindrical simple Cuthbert** Working Pressure **120 lbs** Tested by hydraulic pressure to **240 lbs**
 Date of test **27/10/98** Can each boiler be worked separately Area of fire grate in each boiler **319** No. and Description of safety valves to
 each boiler **2 spring valves** Area of each valve **5.935"** Pressure to which they are adjusted **125 lbs** Are they fitted
 with easing gear **No** Smallest distance between boilers or uptakes and bunkers or woodwork **10"** Mean diameter of boilers **10-5"**
 Diameter of rivet holes in long. seams **1 1/4"** Material of shell plates **S** Thickness **25/32"** Description of riveting: circum. seams **Lap double** long. seams **Lap triple**
 Percentage of strength of longitudinal joint **75** Working pressure of shell by rules **122** Size of manhole in shell **12 x 16**
 Size of compensating ring **7 + 25/32"** No. and Description of Furnaces in each boiler **2 Plain** Material **S** Outside diameter **39"**
 Length of plain part **6-9"** Thickness of plates **25/32"** Description of longitudinal joint **Lap single** No. of strengthening rings
 Working pressure of furnace by the rules **123** Combustion chamber plates: Material **S** Thickness: Sides **3/16"** Back **19/32"** Top **19/32"** Bottom **22/32"**
 Pitch of stays to ditto: Sides **9 1/2"** Back **10"** Top **plain** If stays are fitted with nuts or riveted heads **Nuts** Working pressure by rules **121**
 Material of stays **S** Diameter at smallest part **1 1/2"** Area supported by each stay **59"** Working pressure by rules **125** End plates in steam space:
 Material **S** Thickness **1"** Pitch of stays **19 3/4"** How are stays secured **On s.w.** Working pressure by rules **121** Material of stays **S**
 Diameter at smallest part **2 13/32"** Area supported by each stay **274"** Working pressure by rules **126** Material of Front plates at bottom **S**
 Thickness **27/32"** Material of Lower back plate **S** Thickness **25/32"** Greatest pitch of stays **13 1/2"** Working pressure of plate by rules **120**
 Diameter of tubes **3 1/2"** Pitch of tubes **4 3/4" + 4 5/8"** Material of tube plates **S** Thickness: Front **1"** Back **25/32"** Mean pitch of stays **14 1/2"**
 Pitch across wide water spaces **14 1/2"** Working pressures by rules **129** Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of Stays in each
 Working pressure by rules Superheater or Steam chest; how connected to boiler **Nick** Can the superheater be shut off and the boiler worked
 separately **No** Diameter **3-0"** Length **45"** Thickness of shell plates **3/8"** Material **S** Description of longitudinal joint **Lap double** Diam. of rivet
 holes **7/8"** Pitch of rivets **3"** Working pressure of shell by rules **151** Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness **3/16"** How stayed **Diagonal**
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

