

# REPORT ON MACHINERY.

No. 18435

Port of Hull

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Date, first Survey Mar 22<sup>nd</sup> Last Survey Aug 18<sup>th</sup> 1906

No. in Survey held at Telby & Hull  
 Reg. Book. 2 Cup on the Screw Trawler "Opmonde"  
 Master Telby Built at Telby By whom built Bochane & Sons When built 1906  
 Engines made at Hull By whom made Amos & Smith when made 1906  
 Boilers made at do By whom made do when made 1906  
 Registered Horse Power \_\_\_\_\_ Owners E. Bacow Port belonging to Grimsby  
 Nom. Horse Power as per Section 28 69.5 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12, 21, 34 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft 7.00 Material of screw shaft Steel  
 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 ✓ If two  
 liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2'-11"  
 Dia. of Tunnel shaft 6.26 Dia. of Crank shaft journals 6.58 Dia. of Crank pin 6.7 Size of Crank webs 10.5 x 4.5 Dia. of thrust shaft under  
 collars 6.7 Dia. of screw 8.8 Pitch of Screw 10'-4.5" No. of Blades 4 State whether moveable No Total surface 27 sq. ft.  
 No. of Feed pumps 1 Diameter of ditto 2.5 Stroke 13 Can one be overhauled while the other is at work ✓  
 No. of Bilge pumps 1 Diameter of ditto 3 Stroke 13 Can one be overhauled while the other is at work ✓  
 No. of Donkey Engines One Sizes of Pumps 6 x 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room One 2" dia In Holds, &c. Three 2" dia.  
 Ejector suction from engine room bilges & discharge on deck ✓  
 No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump None Is a separate Donkey Suction fitted in Engine room & size 2" Ejector  
 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 Hold suction How are they protected Wood casing  
 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 7/6/06 of Stern Tube 7/6/06 Screw shaft and Propeller 7/6/06  
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door ✓ worked from ✓

**BOILERS, &c.**—(Letter for record (5)) Manufacturers of Steel The Steel Company of Scotland &c.  
 Total Heating Surface of Boilers 1164 sq. ft. Forced Draft fitted No No. and Description of Boilers One J.E. by Mr. Muller  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 26.7.06 No. of Certificate 1491  
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 34 sq. ft. No. and Description of Safety Valves to  
 each boiler Two spring Area of each valve 3.97 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 7" Mean dia. of boilers 12'-0" Length 10'-0" Material of shell plates Steel  
 Thickness 1" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams DR Lap  
 long. seams 5/8" rivets Diameter of rivet holes in long. seams 1/8" Pitch of rivets 7.63" Lap of plates or width of butt straps 16 1/4"  
 Per centages of strength of longitudinal joint rivets 96.5 Working pressure of shell by rules 180 lbs Size of manhole in shell 16 x 12  
 plate 85.2 Size of compensating ring 40 x 30 x 1 No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 42 3/4  
 Length of plain part top 5'-8" Thickness of plates crown 4.5 Description of longitudinal joint Welded No. of strengthening rings ✓  
 bottom 5'-2" bottom 6.4 Working pressure of furnace by the rules 188 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 11/16 Top 5/8 Bottom 23/32  
 Pitch of stays to ditto: Sides 9 1/4 x 7 Back 9 1/4 x 8 1/2 Top 7 1/2 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 207 lbs End plates in steam space:  
 Material of stays Steel Diameter at smallest part 1 3/4 Area supported by each stay 104 Working pressure by rules 207 lbs Material of stays Steel  
 Material Steel Thickness 31/32 Pitch of stays 16 x 15 1/4 How are stays secured Nuts Working pressure by rules 181 lbs  
 Diameter at smallest part 2 3/4 Area supported by each stay 244 Working pressure by rules 206 lbs Material of Front plates at bottom Steel  
 Thickness 29 Material of Lower back plate Steel Thickness 15 Greatest pitch of stays 14 Working pressure of plate by rules 180 lbs  
 Diameter of tubes 3 1/2 Pitch of tubes 5 x 4 3/4 Material of tube plates Steel Thickness: Front 29/32 Back 27/32 Mean pitch of stays 9 3/4  
 Pitch across wide water spaces 14 Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 7 3/4 x 2 Length as per rule 2'-9" Distance apart 8" Number and pitch of stays in each 3 @ 7 1/2"  
 Working pressure by rules 180 lbs 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 ✓

