

# REPORT ON MACHINERY.

No. 23871.

Received at London Office 30 JUN 1911

Date of writing Report 19 When handed in at Local Office 23<sup>rd</sup> June 1911 Port of Hull  
 No. in Survey held at Hull Beverley Date, First Survey Oct. 19<sup>th</sup> Last Survey 20<sup>th</sup> June 1911  
 Reg. Book. 58 Cuffin the Skull Se. No. "Night Hawk" (Number of Visits 55) Tons { Gross 287 Net 113  
 Master Built at Beverley By whom built Cook, Welton Gemmell When built 1911  
 Engines made at } By whom made } Messrs when made 1911  
 Boilers made at } Hull By whom made } Charles D. Holmes & Co when made 1911  
 Registered Horse Power Owners Pioneer Steam Fishing Co. Ltd Port belonging to Grimsby  
 Nom. Horse Power as per Section 28 87 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 13 1/2" - 23" - 37" Length of Stroke 26" Revs. per minute 110 Dia. of Screw shaft as per rule 7.79 Material of screw shaft I  
 as fitted 8  
 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 If two  
 liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 36"  
 Dia. of Tunnel shaft as per rule 6.9" Dia. of Crank shaft journals as per rule 7.24" Dia. of Crank pin 7.5" Size of Crank webs 11 1/2" x 4 1/2" Dia. of thrust shaft under  
 as fitted 7.5" collars 7.5" Dia. of screw 9'-6" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable No Total surface 34 sq ft  
 No. of Feed pumps Two Diameter of ditto 2 1/2" Stroke 14 3/4" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps Two Diameter of ditto 2 1/2" Stroke 14 3/4" Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines One Sizes of Pumps 5" x 2 3/4" + 5" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room One 3 1/2" Two 2" In Holds, &c. One 2' to fore hold, One  
 2" to elush well.  
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2" E.g.  
 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 29.4.11 of Stern Tube 29.4.11 Screw shaft and Propeller 29.4.11  
 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 Phoenix Apts. G. A. H. V. of Houlder.  
 Total Heating Surface of Boilers 1500 sq ft Is Forced Draft fitted No No. and Description of Boilers One cyl. Multi Sing. Ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 31.3.11 No. of Certificate 1797  
 Can each boiler be worked separately Area of fire grate in each boiler 46.8 sq ft No. and Description of Safety Valves to  
 each boiler Two Spring Area of each valve 4.9 sq in 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 11" Mean dia. of boilers 14'-0" Length 10'-9" Material of shell plates S  
 Thickness 1 5/32" Range of tensile strength 28 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.D.  
 long. seams D.B.S.T.R Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 9" Lap of plates or width of butt straps 18"  
 Per centages of strength of longitudinal joint rivets 88.8 Working pressure of shell by rules 185 lbs Size of manhole in shell 16" x 12"  
 plate 85. No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 39"  
 Size of compensating ring 7" x 1 5/32" Length of plain part top 6'-5" Thickness of plates crown 3/4" Description of longitudinal joint welded No. of strengthening rings 0  
 bottom 6'-2" Working pressure of furnace by the rules 189 lbs Combustion chamber plates: Material S Thickness: Sides 7/16" Back 3/32" Top 1/16" Bottom 1/32"  
 Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 9 1/2" x 9 1/2" Top 9 1/2" x 9 1/2" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 181 lbs  
 Material of stays S Diameter at smallest part 2.4 Area supported by each stay 115.1875 Working pressure by rules 187 lbs End plates in steam space:  
 Material S Thickness 1 1/4" Pitch of stays 20" x 20" How are stays secured D.R.W. Working pressure by rules 185 lbs Material of stays S  
 Diameter at smallest part 7.5" Area supported by each stay 400 sq in Working pressure by rules 195 lbs Material of Front plates at bottom S  
 Thickness 1" Material of Lower back plate S Thickness 2 1/8" Greatest pitch of stays 11 1/2" x 8 1/2" Working pressure of plate by rules 184 lbs  
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 5 1/4" Material of tube plates S Thickness: Front 1" Back 3/8" Mean pitch of stays 10 1/2"  
 Pitch across wide water spaces 13 3/4" Working pressures by rules 189 lbs Girders to Chamber tops: Material S Depth and  
 thickness of girder at centre 10" x 2" Length as per rule 3'-8" Distance apart 9 1/2" Number and pitch of stays in each three, 9 1/2"  
 Working pressure by rules 195 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

810-1584

**VERTICAL DONKEY BOILER—** Manufacturers of Steel

No.	Description				
Made at	By whom made	When made	Where fixed		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Sa
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can 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 Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

**SPARE GEAR.** State the articles supplied: *Two each top and bottom end connectors, rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each, feed and bellows, air, and donkey pump valves, iron various sizes, various bolts nuts*

The foregoing is a correct description,

**CHARLES D. HOLMES & Co. Ltd.** Manufacturer.

*Harold I. Sheardson*  
 Dates of Survey while building: *1910: Oct. 19, 21, 27. Nov. 3, 4, 9, 11, 14, 18, 21. Dec. 2, 6, 7, 9, 12, 15, 17, 20. 1911: Jan. 11, 13, 23, 25, 30. Feb. 9, 11, 20, 27. Mar. 2, 7, 9, 13, 21, 24, 28, 30, 31. Apr. 3, 6, 10, 20, 21, 26, 27. May 3, 8, 15, 29. Jun. 1, 7, 9, 13, 14, 15, 20.*  
 Total No. of visits *55*

Dates of Examination of principal parts—Cylinders *10.4.11* Slides *29.5.11* Covers *29.5.11* Pistons *8.5.11* Rods *26.4.11*  
 Connecting rods *26.4.11* Crank shaft *10.4.11* Thrust shaft *29.5.11* Tunnel shafts Screw shaft *6.4.11* Propeller *6.4.11*  
 Stern tube *6.4.11* Steam pipes tested *14.6.11* Engine and boiler seatings *1.6.11* Engines holding down bolts *15.6.11*  
 Completion of pumping arrangements *20.6.11* Boilers fixed *15.6.11* Engines tried under steam *20.6.11*  
 Main boiler safety valves adjusted *15.6.11* Thickness of adjusting washers *9/16" 9/16"*  
 Material of Crank shaft *Steel* Identification Mark on Do. *745 B. 3.4.11* Material of Thrust shaft *Steel* Identification Mark on Do. *745 B. 29.5.11*  
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *Iron* Identification Marks on Do. *745 B. 6.4.11*  
 Material of Steam Pipes *Solid drawn Copper* Test pressure *400 lbs per sq inch*

**General Remarks** (State quality of workmanship, opinions as to class, &c. *The engines and boilers of this vessel have been constructed under special supervision in accordance with the Rules, the materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines secured on board, tested under steam. They are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of L.M.C. 6.11 in the Register Book.*

*It is submitted that this vessel is eligible for THE BOARD + L.M.C. 6.11.*

*J.W.D. 30/6/11*

*James Barclay*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee	£ 1	When applied for.
Special	£ 13	28.6.11
Donkey Boiler Fee	£	When received.
Travelling Expenses (if any)	£ 2	30.6.11

**Committee's Minute** *11/25. 4 JUL 1911*  
**Assigned** *Home 3.11*

**VESS**

These particulars are

Signal Letters (if any)

Official Number. *132,107*

No., Date, and Port of Previous

Whether British or Foreign Built. *British*

Whether and if a

Number of Decks

Number of Masts

Rigged

Stern

Build

Galleries

Head

Framework and description of vessel

Number of Bulkheads

Number of water ballast tanks and their capacity in tons

Total to quarter the depth from weather to bottom of keel

No. of sets of Engines. Description of Engines. *Triple expansion direct acting inverted cylinder*

No. of Shafts. Particulars of Boilers. Description Cyl. Multi. Number Iron or Steel Loaded Pressure *180 lbs*

GROSS TONNAGE

Under Tonnage Deck

Space or spaces between Deck

Turret or Tank

Forecastle (Side Ho.)

Bridge space

Pooper Break

Side Houses

Deck Houses

Chart Houses

Spaces for machinery, and 1 Section 78 (2) of the Merchant Shipping Act 1894

Excess of Hatchways

Gross Tonnage Deductions, as per Contract

Registered Tonnage

NOTE- The only spaces above Open Forecastle less companionway

NOTE- The tonnage of spaces above

Name of Master

No. of Owners

Name, Residence, and Description of Vessel *Pioneer Steam Grimsby, in the C*

Manager *Geo*

Dated *21<sup>st</sup> June*

