

# REPORT ON MACHINERY.

Port of Grimsey Received at London Office MON. 18 JUN 1906  
 No. in Survey held at Grimsey Date, first Survey 14 November 05 Last Survey 22 May 1906  
 Reg. Book. on the Steak Trawler L 48 X (Number of Visits 35)  
 Master H. Rowson Built at Selby By whom built Cochran & Sons Tons Gross 250 Net 103  
 Engines made at Grimsey By whom made St. Central Co. & S. H. C. & L. when made 1906  
 Boilers made at Hartlepool By whom made Central Marine & L. when made 1906  
 Registered Horse Power 76 Owners Gen. & M. S. & S. Rawlins belonging to Grimsey  
 Nom. Horse Power as per Section 28 76 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

Original of 18/6

**ENGINES, &c.**—Description of Engines Triple Expansion Surf. Cond. No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 12 1/4, 22 3/8 Length of Stroke 24 Revs. per minute 108 Dia. of Screw shaft as per rule 7.07 Material of screw shaft Spring  
 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 6.39 Dia. of Crank shaft journals as per rule 6.7 Dia. of Crank pin 7 Size of Crank webs 13 1/4 Dia. of thrust shaft under collars 7 Dia. of screw 8-6 Pitch of Screw 11-0 No. of Blades 4 State whether moveable no Total surface 28 1/2  
 No. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 2 Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work Yes  
 No. of Donkey Engines 1 Sizes of Pumps 3 1/2 & 6 Stroke 6 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Sea bilge & Hotwell 2" bore In Holds, &c. Fish rooms 2" bore  
 No. of Bilge Injections 1 sizes 2 3/4 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 6" & 2 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 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 Fish room & Hotwell suction How are they protected Wood and iron casings  
 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 12/3/06 of Stern Tube 12/3/06 Screw shaft and Propeller 12/3/06  
 Is the Screw Shaft Tunnel watertight no tunnel Is it fitted with a watertight door worked from

**BOILERS, &c.**—(Letter for record ) Manufacturers of Steel

Total Heating Surface of Boilers	Is Forced Draft fitted	No. and Description of Boilers
Working Pressure	Tested by hydraulic pressure to	Date of test
Can each boiler be worked separately	Area of fire grate in each boiler	No. and Description of Safety Valves to each boiler
Area of each valve	Pressure to which they are adjusted	Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork	Mean dia. of boilers	Length
Material of shell plates	Thickness	Range of tensile strength
Are the shell plates welded or flanged	Descrip. of riveting: cir. seams	long. seams
Diameter of rivet holes	Pitch of rivets	Lap of plates or width of butt straps
Per centages of strength of longitudinal joint	Working pressure of shell by rules	Size of manhole in shell
Size of compensating ring	No. and Description of Furnaces in each boiler	Material
Outside diameter	Length of plain part	Thicknes of plates
Description of longitudinal joint	No. of strengthening rings	Working pressure of furnace by the rules
Combustion chamber plates: Material	Thickness: Sides	Back
Top	Bottom	Pitch of stays to ditto: Sides
Back	Top	If stays are fitted with nuts or riveted heads
Working pressure by rules	Material of stays	Diameter at smallest part
Area supported by each stay	Working pressure by rules	End plates in steam space:
Material of stays	Thickness	Pitch of stays
How are stays secured	Working pressure by rules	Material of stays
Diameter at smallest part	Area supported by each stay	Working pressure by rules
Material of Front plates at bottom	Thickness	Material of Lower back plate
Thickness	Greatest pitch of stays	Working pressure of plate by rules
Diameter of tubes	Pitch of tubes	Material of tube plates
Thickness: Front	Back	Mean pitch of stays
Pitch across wide water spaces	Working pressures by rules	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
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	Pitch of rivets	Working pressure of shell by rules
Diameter of flue	Material of flue plates	Thickness
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	

Boiler particularly repaired  
 Hartlepool  
 12/3/06

**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
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
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		Stayed by	
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey	

**SPARE GEAR.** State the articles supplied: — *Two each of top & bottom end bolts & main bearing bolts, one set coupling bolts, one set each of air circulating, feed bilge & donkey pump valves, main & auxiliary feed check valves, studion bolts & nuts & end cover tubes etc.*

The foregoing is a correct description,

For the **GREAT CENTRAL CO-OPERATIVE ENGINEERING & SHIP REPAIRING COMPANY, LTD.**

Manufacturer.

*Fred Lister*

Dates of Survey while building	During progress of work in shops -	1905: — Nov 14, 18, 22, 28, 30 Dec 8, 14, 21
	During erection on board vessel -	January 06: — 1, 5, 19, 27, 31 Feb 6, 14, 17, 21, 22, 23
	Total No. of visits	May 06: 12, 15, 18, 21, 22 Thirty Five

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—	Cylinders	1/1/06	Slides	2/4/06	Covers	2/4/06	Pistons	2/4/06	Rods	3/1/06	
Connecting rods	3/1/06	Crank shaft	19/3/06	Thrust shaft	2/4/06	Tunnel shafts	✓	Screw shaft	2/3/06	Propeller	2/3/06
Stern tube	2/3/06	Steam pipes tested	14/5/06	Engine and boiler seatings	11/12/5/06	Engines holding down bolts	12/5/06 etc.				
Completion of pumping arrangements	2/5/06	Boilers fixed	12/5/06	Engines tried under steam	22/5/06						
Main boiler safety valves adjusted	19/5/06	Thickness of adjusting washers	3/16								
Material of Crank shaft	Iron	Identification Mark on Do.	No 475		Material of Thrust shaft	See iron	Identification Mark on Do.	No 481			
Material of Tunnel shafts	✓	Identification Marks on Do.	✓		Material of Screw shafts	See iron	Identification Marks on Do.	No 471			
Material of Steam Pipes	Copper, Solid Drawn, 3/4 bore No 769 Test (pressure) 400 lbs.										

**General Remarks** (State quality of workmanship, opinions as to class, &c. *this machinery has been built under special survey, the materials & workmanship are good, the engines have been satisfactorily fitted into the vessel and tried under steam, and in my opinion, the case is eligible for the notation + d u c @ 6.06. (in red)*)

It is submitted that this vessel is eligible for **THE RECORD** H.L.M.C. 5.06.

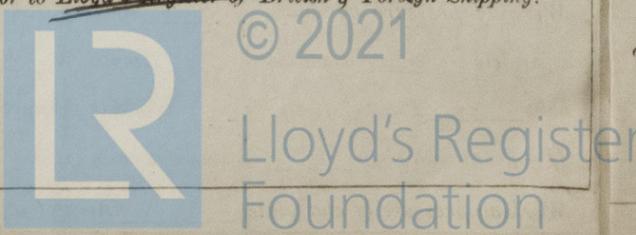
*Handwritten signatures and dates: 18.6.06*

*P. Ritchie*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee...	£ 1 : - : -	When applied for.
Special	£ 11 : 8 : -	16 Jan 06
Donkey Boiler Fee	£ 12 : 8 : -	
Bailment Fee	£ 3 : 16 : -	
Traveling Expenses (if any)	£ 8 : 12 : 0	25 Jan 06

Committee's Minute **TUES. 19 JUN 1906**  
Assigned **+ L.M.C. 5.06**

MACHINERY CERTIFICATE WRITTEN.



Certificate issued. 2676. This office.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)