

REPORT ON MACHINERY

No. 10321

THU. 24. AUG. 1916

Received at London Office

Writing Report
 Survey held at *Grimsby*
 Book. *S.S. Myndham*
 on the
 Built at *Lech*
 By whom built *Cochrane & Sons*
 Made at *Grimsby*
 By whom made *P. Central Co. op. Eng' W. R. Ch.*
 Made at *do.*
 By whom made *do.*
 Rated Horse Power
 Owners *E. C. Grant*
 Port belonging to *Grimsby*
 Horse Power as per Section 28 *84*
 Is Refrigerating Machinery fitted for cargo purposes *no*
 Is Electric Light fitted *yes*

INES, &c.—Description of Engines *Triple Expansion Inverted* No. of Cylinders *3* No. of Cranks *3*
 of Cylinders *13. 23. 37* Length of Stroke *24* Revs. per minute *7.5* Dia. of Screw shaft *7.5* Material of screw shaft *Iron*
 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
 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
 on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *yes* If two
 are fitted, is the shaft lapped or protected between the liners *✓* Length of stern bush *36*
 of Tunnel shaft *as per rule 6.85* Dia. of Crank shaft journals *as per rule 7.19* *6.95* Dia. of Crank pin *7.5* Size of Crank webs *4 1/2 x 14* Dia. of thrust shaft under
 rs *7 1/2* Dia. of screw *9-3* Pitch of Screw *11-6* No. of Blades *4* State whether moveable *no* Total surface *320*
 of Feed pumps *2* Diameter of ditto *2 1/2* Stroke *12* Can one be overhauled while the other is at work *yes*
 of Bilge pumps *2* Diameter of ditto *2 1/2* Stroke *12* Can one be overhauled while the other is at work *yes*
 of Donkey Engines *1* Sizes of Pumps *6 x 3 1/2 x 6* No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room *2' to sea. Holtell. & Bilges (2)* In Holds, &c. *2' to forepeak. forehold, and*
 fishroom (2)
 of Bilge Injections *1* sizes *3* Connected to condenser, or to circulating pump *pump* Is a separate Donkey Suction fitted in Engine room & size *2 1/2* ejector
 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*
 all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*
 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*
 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*
 at pipes are carried through the bunkers *rmch steam exhaust* How are they protected *wood casing*
 e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*
 e the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *yes*
 tes of examination of completion of fitting of Sea Connections *seen at Shell 1/4/16* of Stern Tube *seen at Shell 1/4/16* Screw shaft and Propeller *seen at Shell 1/4/16*
 the Screw Shaft Tunnel watertight *✓* Is it fitted with a watertight door *✓* worked from *✓*

ILERS, &c.—(Letter for record *S*) Manufacturers of Steel *Stewarts & Lloyds Ld.*
 Heating Surface of Boilers *1371* Is Forced Draft fitted *no* No. and Description of Boilers *one SE return tube*
 Working Pressure *200 lb.* Tested by hydraulic pressure to *400 lb.* Date of test *26/6/16* No. of Certificate *1441*
 in each boiler be worked separately *✓* Area of fire grate in each boiler *43* No. and Description of Safety Valves to
 ch boiler *2 direct opening* Area of each valve *3.98* Pressure to which they are adjusted *205 lb.* Are they fitted with easing gear *yes*
 smallest distance between boilers *on upstokes and bunkers on woodwork* *4"* Mean dia. of boilers *14-0* Length *10-6* Material of shell plates *5"*
 thickness *1 1/4* Range of tensile strength *28/32* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *double*
 ing. seams *treble butt* Diameter of rivet holes in long. seams *1 5/16* Pitch of rivets *8 3/4* Lap of plates or width of butt straps *18 3/8*
 per centages of strength of longitudinal joint *91.5* Working pressure of shell by rules *200* Size of manhole in shell *12 x 16*
 size of compensating ring *16 x 16 x 1 1/4* No. and Description of Furnaces in each boiler *3 plain* Material *S* Outside diameter *39*
 Length of plain part *top 7 1/2* Thickness of plates *bottom 5 1/4* Description of longitudinal joint *welded* No. of strengthening rings *none*
 Working pressure of furnace by the rules *200* Combustion chamber plates: Material *S* Thickness: Sides *1 1/16* Back *1 1/16* Top *1 1/16* Bottom *1 1/8*
 Pitch of stays to ditto: Side *8 x 8 1/2* Back *9 x 8 1/2* Top *9 x 8* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *212*
 Material of stays *S* Diameter at smallest part *2.1* Area supported by each stay *76.5* Working pressure by rules *245* End plates in steam space: *S*
 Material *S* Thickness *1 5/32* Pitch of stays *2 1/15* How are stays secured *d. nuts & washers* Working pressure by rules *200* Material of stays *S*
 Diameter at smallest part *6.6* Area supported by each stay *315* Working pressure by rules *218* Material of Front plates at bottom *S*
 Thickness *1* Material of Lower back plate *S* Thickness *1* Greatest pitch of stays *14* Working pressure of plate by rules *217*
 Diameter of tubes *3 1/2* Pitch of tubes *5.06* Material of tube plates *S* Thickness: Front *1* Back *7/8* Mean pitch of stays *11.5*
 Pitch across wide water spaces *14* Working pressures by rules *209* Girders to Chamber tops: Material *S* Depth and
 thickness of girder at centre *2-10 1/4 x 7 1/8* Length as per rule *36* Distance apart *9* Number and pitch of stays in each *3-8*
 Working pressure by rules *215* 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 *2019* 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 *✓*

SL10-915M

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 _____

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 _____ 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:— 2mo top & bottom end main bearing bolts, a set of coupling bolts, nuts, a set of feed, bilge, escape, check, and safety valves, safety valve springs, donkey pump valves, air circulating pump valves, bolts, nuts, assorted iron.

The foregoing is a correct description, For The Central Co. of Eng & Ship Rep & Co
Manufacturers. *no W Buigle*

Dates of Survey while building
During progress of work in shops -- 1915 Sep 21 Oct 2 21 Nov 2 7 18 30 Dec 10 23 Jan 1 4 19 22 26 Feb 3 7 12 24 Mar 1 2 10 11 13 20 28 Apr 6 8 10 13 14 15 29
During erection on board vessel -- 1916 July 4 7 11 15 18 24 Aug 3 7 8
Total No. of visits 55.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders HP 10/12/15 LP 10/12/15 Slides 13/6/16 Covers 24/2/16 Pistons 18/5/16 Rods 10/12/15
Connecting rods 10/12/15 Crank shaft 20/3/16 Thrust shaft 27/6/16 Tunnel shafts ✓ Screw shaft 20/3/16 Propeller 28/3/16
Stern tube 28/3/16 Steam pipes tested 24/7/16 Engine and boiler seatings ✓ Engines holding down bolts 11/7/16
Completion of pumping arrangements 3/8/16 Boilers fixed 15/7/16 Engines tried under steam 8/8/16
Main boiler safety valves adjusted 8/8/16 Thickness of adjusting washers 5 7/16 P 3/8
Material of Crank shaft Identification Mark on Do. 20.3.16 C.M. Material of Thrust shaft Iron Identification Mark on Do. 27.6.16
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron Identification Marks on Do. 28.3.16
Material of Steam Pipes Solid drawn copper - 62w9. ✓ Test pressure 400 lb. pr. sq. inch

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under special survey, and the material and workmanship are good. It has been efficiently fitted on board the vessel and in my opinion is eligible for notation of *the light*.

The above machinery is a duplicate of that fitted in *Sp. Report. 10.10.205*.

It is submitted that this vessel is eligible for THE RECORD + LMC 8.16.

The amount of Entry Fee .. £ 1 : - : When applied for, 23/8/16 C.M.
Special .. £ 12 : 12 : :
Donkey Boiler Fee .. £ : : :
Travelling Expenses (if any) £ : : : 2/10 1916 3/10/16

Committee's Minute TUE 29 AUG 1916

Assigned

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping



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