

REPORT ON MACHINERY

No. 10321

THU. 24. AUG. 1916

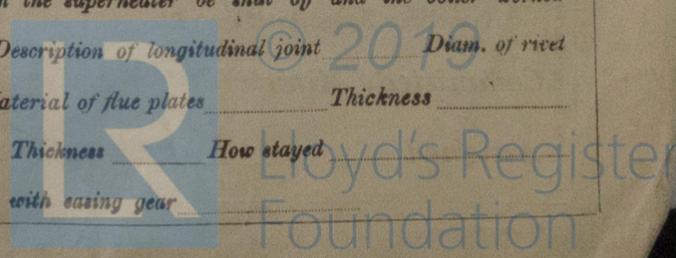
Received at London Office

Writing Report
 Survey held at Grimsby When handed in at Local Office 23/8/16 Port of Grimsby
 Book. S.S. Myndham Date, First Survey 2/9/15 Last Survey 8/8/16
 on the S.S. Myndham (Number of Visits) 53
 Built at Leely By whom built Cochrane Hows Tons } Gross
 } Net
 Made at Grimsby By whom made P. Central Co. op. Eng' W. R. Ch. when made 1916
 Made at do. By whom made do. when made 1916
 Rated Horse Power 84 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

ENGINES, &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 7.65 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 Dia. of Crank pin 7.5 Size of Crank webs 4 1/2 x 14 Dia. of thrust shaft under
 pins 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, hothell, bilges (2) In Holds, &c. 2" to forepeak, forehold, and
 forehold (2)
 of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump no 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 through steam truss How are they protected wood casing
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 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 seen at skull of Stern Tube 1/4/16 seen at skull of Screw shaft and Propeller 1/4/16 seen at skull 1/4/16
 the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Stewarts & Lloyds L^d.
 Total 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
 each 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 4" and bunkers woodwork Mean dia. of boilers 14-0 Length 10-6 Material of shell plates
 thickness 1 1/4 Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. 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
 percentages of strength of longitudinal joint rivets 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 1/4 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 39
 Length of plain part top 7.6 bottom 11.4 Thickness of plates crown 5/16 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 Thickness 1 5/32 Pitch of stays 2 1/15 How are stays secured d. nuts & washers Working pressure by rules 245 End plates in steam space:
 Material S Thickness 1 5/32 Area supported by each stay 3.15 Working pressure by rules 218 Material of Front plates at bottom S
 Diameter at smallest part 6.6 Area supported by each stay 3.15 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 7/8 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

MS 10-915M



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 _____ 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:— 2mo top & bottom end main bearing bolts, a set of coupling bolts nuts, a set of fuel, 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
 Manufacturer. *no W Buegle*

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	1916 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 *ye*

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	Seen at Hull	Engines holding down bolts		Engines tried under steam	8/8/16		
Completion of pumping arrangements	3/8/16	Boilers fixed	15/7/16	Thickenss of adjusting washers	S 7/16 P 3/8						
Main boiler safety valves adjusted	8/8/16	Identification Mark on Do.	20.3.16	Material of Thrust shaft	Iron	Identification Mark on Do.	27.6.16				
Material of Crank shaft	Iron	Identification Marks on Do.	✓	Material of Screw shafts	Iron	Identification Marks on Do.	28.3.16				
Material of Tunnel shafts	✓	Material of Steam Pipes	Solid drawn copper - 6209. ✓	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 *SR Prefect* Sms. report. N^o. 10,205.

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

Certificate (if required) to be sent to

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

JWR
 25/8/16
C. Marshall
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute TUE 29 AUG 1916

Assigned + Lm. 6. 8. 16.

MACHINERY CERTIFICATE WRITTEN



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