

# REPORT ON MACHINERY.

No. 20722.

Port of Hull

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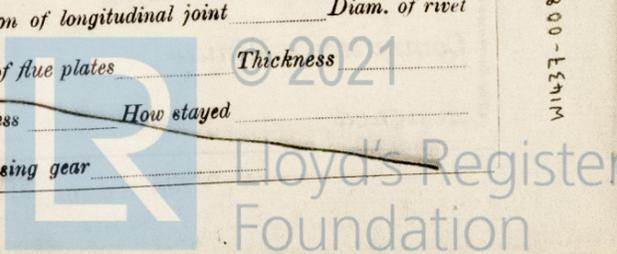
No. in Survey held at New Holland Hull Date, first Survey Sep<sup>r</sup> 26<sup>th</sup> Last Survey 30<sup>th</sup> Nov 1908  
 Reg. Book. 27 on the Steel Ss. "Elsa Partiss" (Number of Visits 15)  
 Master Built at New Holland By whom built W. H. Warren When built 1908  
 Engines made at Hull By whom made Jindall Earle & Hutchison when made 1904  
 Boilers made at Hull By whom made Jindall Earle & Hutchison when made 1902  
 Registered Horse Power Owners Mr. H. J. Guy (J. Guy Mgr) Port belonging to Hull  
 Nom. Horse Power as per Section 28 1920 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Compound surface Condensing No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 11" - 22" Length of Stroke 16" Revs. per minute 150 Dia. of Screw shaft 4.75 Material of screw shaft Iron  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No 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 No 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 21"  
 Dia. of Tunnel shaft 4.8 Dia. of Crank shaft journals 4.8 Dia. of Crank pin 4.3/4 Size of Crank webs 9" x 3 3/8" Dia. of thrust shaft under  
 collars 4 3/4" Dia. of screw 5'-8" Pitch of Screw 7'-6" No. of Blades 4 State whether moveable No Total surface 17 sq  
 No. of Feed pumps 1 Diameter of ditto 1 3/4" Stroke 4" Can one be overhauled while the other is at work  
 No. of Bilge pumps 1 Diameter of ditto 1 1/2" Stroke 4" Can one be overhauled while the other is at work  
 No. of Donkey Engines One Sizes of Pumps 5" x 5" x 2 3/4" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2" In Holds, &c. one 2"

No. of Bilge Injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size Yes 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 awash  
 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 None How are they protected —  
 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 1.10.08 of Stern Tube 1.10.08 Screw shaft and Propeller 1.10.08  
 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 Beardmore 6°  
 Total Heating Surface of Boilers 370 sq Is Forced Draft fitted No No. and Description of Boilers One Cyl. Multi  
 Working Pressure 95 lbs Tested by hydraulic pressure to 250 lbs Date of test 8.7.03 No. of Certificate 1276  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 25.8 sq No. and Description of Safety Valves to  
 each boiler Two Spring Area of each valve 4.9 sq Pressure to which they are adjusted 115 lbs Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 4 1/2" Mean dia. of boilers 7'-6" Length 8'-6" Material of shell plates Steel  
 Thickness 3/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.S.  
 long. seams D.B.S. & R. Diameter of rivet holes in long. seams 3/4" Pitch of rivets 4 7/8" Lap of plates or width of butt straps 8 1/2"  
 Per centages of strength of longitudinal joint 91 Working pressure of shell by rules 128 lbs Size of manhole in shell 16" x 12"  
 Size of compensating ring 6 1/2" x 5 1/8" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 2'-4"  
 Length of plain part 5'-7" Thickness of plates 1/2" Description of longitudinal joint Welded No. of strengthening rings 0  
 Working pressure of furnace by the rules 133 lbs Combustion chamber plates: Material Steel Thickness: Sides 17/32" Back 32" Top 17/32" Bottom 32"  
 Pitch of stays to ditto: Sides 8 1/4" x 7 1/2" Back 9" x 7" Top 8" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 134 lbs  
 Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 63 sq Working pressure by rules 156 lbs End plates in steam space:  
 Material Steel Thickness 3/32" Pitch of stays 15" How are stays secured D. Nuts Working pressure by rules 141 lbs Material of stays Steel  
 Diameter at smallest part 3 sq Area supported by each stay 215 sq Working pressure by rules 133 lbs Material of Front plates at bottom Steel  
 Thickness 23/32" Material of Lower back plate Steel Thickness 23/32" Greatest pitch of stays 11" x 10" Working pressure of plate by rules 163 lbs  
 Diameter of tubes 2 1/2" Pitch of tubes 3 1/2" x 3 1/8" Material of tube plates Steel Thickness: Front 23/32" Back 5/8" Mean pitch of stays 8 1/4"  
 Pitch across wide water spaces 13" Working pressures by rules 125 lbs Girders to Chamber tops: Material Iron Depth and  
 thickness of girder at centre 7 1/2" x 1 1/4" Length as per rule 26" Distance apart 8" Number and pitch of stays in each Two 7 1/2"  
 Working pressure by rules 162 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 —

1/2 L800-LE31M



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 Safety
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	Di. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Di. 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.	Di. 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 top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each feed and bilge pump valves, and a quantity of assorted bolts nuts etc

The foregoing is a correct description,

The Manufacturers no longer exist.

Dates of Survey while building  
 During progress of work in shops - 1908: Sep 26, 28, 29, 30, Oct 1, 5, 24, 26, 27, 31, Nov 3, 5, 6, 7, 30  
 During erection on board vessel -  
 Total No. of visits 15

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts—Cylinders 26.10.08 Slides 26.10.08 Covers 26.10.08 Pistons 26.10.08 Rods 26.10.08  
 Connecting rods 26.10.08 Crank shaft 26.10.08 Thrust shaft 26.10.08 Tunnel shafts 26.10.08 Screw shaft 29.9.08 Propeller 29.9.08  
 Stern tube 28.9.08 Steam pipes tested 27.10.08 Engine and boiler seatings 5.10.08 Engines holding down bolts 26.10.08  
 Completion of pumping arrangements 30.11.08 Boilers fixed 31.10.08 Engines tried under steam 30.11.08  
 Main boiler safety valves adjusted 30.11.08 Thickness of adjusting washers  $\frac{3}{32}$  &  $\frac{1}{16}$  &  $\frac{3}{32}$  to suit Hull 5/11/08  
 Material of Crank shaft Iron Identification Mark on Do. None Material of Thrust shaft Iron Identification Mark on Do. None  
 Material of Tunnel shafts Iron Identification Marks on Do. None Material of Screw shafts Iron Identification Marks on Do. 2147.ATC  
 Material of Steam Pipes Solid drawn copper. Test pressure 250 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c. These engines and boiler were constructed under special survey, as per Hull Rpts. 16440 & 15588 respectively, they were then fitted in the unclassed tug Advance, now taken out of the Advance, fitted on board this vessel (Elsa Partiss). The cylys, pistons, slide valves, crank, thrust, tunnel & screw shaft, (a new one) condensers, pumps & valves, bilge suction & roses, bilge injection valve, sea cocks and valves, donkey pump, propeller, stern bush and fastenings of the sea connections, Main boiler internal and external doors and mountings, and found or made good as under. Engines and boiler tested under steam found satisfactory. Repairs. Circulating pump rod renewed. Air pump rod, feed and bilge pump rams tried up, neck rings renewed, gland bushed. Relief valve springs on feed and bilge pumps renewed. New donkey pump fitted, new sea cocks & valves bilge injectors valve fitted. New ring fitted round mudhole door on main

The amount of Entry Fee... £ 1  
 Special ... £ 4  
 Donkey Boiler Fee ... £  
 Travelling Expenses (if any) £ 3

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

Committee's Minute TUES. 8 DEC 1908  
 Assigned + L.M.B. 11.08

MACHINERY CERTIFICATE WRITTEN.

+ N.E. 11.04 + NB 7.03  
 refitted 08 refitted 08

Rpt. 9a.

Port of Hull Continuation of Report No. 20722 dated Nov 1908 on the

Steel Ss. Elsa Partiss  
 main boiler. New solid drawn copper main steam pipe now fitted, this pipe tested by hydraulic pressure to 250 lbs, and sample piece cut from pipe flattened till sides met, both tests satisfactory.

This machinery being now in good order and safe working condition, is eligible in my opinion to be classed with the notations of L.M.B. 11.08 + N.B. 1903 boilers made 1903. Engines made 1904, refitted 11.08 working pressure 110 lbs, L.S.N. 11.08 in the Register Book.

James Barclay

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11.08.

+ N.E. 11.04 refitted 08 + NB 7.03 refitted 08.  
 NS 11.08 9576.

JWB  
 7.12.08

Certificate (if required) to be sent to Hull

14800-LIMM

