

REPORT ON MACHINERY.

Received at London Office

MON. SEP. 15. 1913

Date of writing Report 6-9-13 19 When handed in at Local Office 9. 9- 13 Port of Hull

No. in Survey held at Hull Date, First Survey Dec 7/1909 Last Survey 3-9-13 19
 Reg. Book. on the Steel Screw Lug Lady Nedegar (Number of Visits 72) Gross 105 Tons Net 24

Master Selby Built at Selby By whom built Cochran & Sons Ltd When built 1913-9

Engines made at Hull By whom made Parlis Co Ltd when made 1913-9

Boilers made at Hull By whom made Parlis Co Ltd when made 1913-9

Registered Horse Power _____ Owners J. Constant Port belonging to Newport (Wales)

Nom. Horse Power as per Section 28 59 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks 3

Dia. of Cylinders 13" - 18" - 31" Length of Stroke 21" Revs. per minute _____ Dia. of Screw shaft 7" Material of screw shaft steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner Is the after end of the liner made water tight in the propeller boss ✓ If the liner is in more than one length are the joints burned ✓ 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 30 1/2"

Dia. of Tunnel shaft 6 1/2" Dia. of Crank shaft journals 6 3/4" Dia. of Crank pin 6 1/2" Size of Crank webs 12 3/8" x 4 1/2" Dia. of thrust shaft under collars 6 1/2" Dia. of screw 8'-0" Pitch of Screw 10'-9" No. of Blades 3 State whether moveable no Total surface 27 1/2"

No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 10" Can one be overhauled while the other is at work ✓

No. of Donkey Engines one Sizes of Pumps 6" x 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Two 2" dia In Holds, &c. one 2" in each compartment

No. of Bilge Injections one sizes 3" 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 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 Main steam & feed How are they protected plated recess

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 22-8-13 of Stern Tube 22-8-13 Screw shaft and Propeller 22-8-13

Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel A. Beardmore & Co

Total Heating Surface of Boilers 1060 Is Forced Draft fitted no No. and Description of Boilers one single ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 1-8-13 No. of Certificate 2001

Can each boiler be worked separately ✓ Area of fire grate in each boiler 35.8 sq ft No. and Description of Safety Valves to each boiler two spring loaded Area of each valve 3.97 sq in Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes

Smallest distance between boilers 8" lapped Mean dia. of boilers 36 1/8" Length 10'-0" Material of shell plates S

Thickness 15/16" Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double long. seams J.P.A.B.S. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 5/8" Lap of plates or width of butt straps 16"

Per centages of strength of longitudinal joint rivets 92.6 plate 86.3 Working pressure of shell by rules 181 Size of manhole in shell 12" x 16"

Size of compensating ring 7" x 15/16" No. and Description of Furnaces in each boiler two plain Material S Outside diameter 40"

Length of plain part top 8.0 7/16" bottom 6-2 1/2" Thickness of plates crown 7/16" bottom 1/4" Description of longitudinal joint welded No. of strengthening rings ✓

Working pressure of furnace by the rules 187 Combustion chamber plates: Material S Thickness: Sides 3/8" Back 2 1/32" Top 3/8" Bottom 5/8"

Pitch of stays to ditto: Sides 8 3/4" x 8 1/2" Back 9 1/4" x 8" Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181

Material of stays S Diameter at smallest part 1.76" Area supported by each stay 74.375 sq in Working pressure by rules 190 End plates in steam space: Material S Thickness 1" Pitch of stays 15" x 16" How are stays secured A. T. Working pressure by rules 186 Material of stays S

Area at smallest part 4.22 sq in Area supported by each stay 240 sq in Working pressure by rules 182 Material of Front plates at bottom S

Thickness 15/16" Material of Lower back plate S Thickness 7/8" Greatest pitch of stays 14 1/2" x 8" Working pressure of plate by rules 193

Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 3/4" Material of tube plates S Thickness: Front 15/16" Back 13/16" Mean pitch of stays 9 1/2"

Pitch across wide water spaces 14 1/2" Working pressures by rules 182 lbs Girders to Chamber tops: Material S Depth and thickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 28" Distance apart 8" Number and pitch of stays in each Two 8 1/2"

Working pressure by rules 192 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 2020 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 ✓

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description			When made	Where fixed
Made at	By whom made				
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Values	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 top end bolts & nuts, Two bottom end bolts & nuts, Two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed, bilge, air circulating pump valves, one main & one auxiliary check valve, and a quantity of bolts & nuts & iron of various sizes.

The foregoing is a correct description,

H. L. L. L.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1909 :- Dec 7. 16. 21. 22. 30. 1910 :- Jan 5. 8. 20. Feb 3. 8. 17. 23. 25. 26. Mar 2. 5. 7. 8. 9. 21. Apr 1. 4. 7. 8. 16. 22. 26. 27. May 10. 23. 28. Jun 6. 9. Nov 25. 29. Dec 5. 8. 13. 26. 31. 1911. Jan 3. 7. 10. 12. 14. 18. 24. 31. Feb. 12. 8. Apr. 1 Dec 21.

During erection on board vessel -- 1913. Jun 19. 20. 25. 26. July 4. 9. 15. 17. 21. 24. 26. 30. 31. Aug 12. 18. 22. 27. 29. Sep 1. 3.

Total No. of visits 72.

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 19-6-13 Slides 19-6-13 Covers 19-6-13 Pistons 26-6-13 Rods 26-6-13

Connecting rods 26-6-13 Crank shaft 19-6-13 Thrust shaft 30-7-13 Tunnel shafts 25-7-13 Screw shaft 31-7-13 Propeller 31-7-13

Stern tube 30-7-13 Steam pipes tested 29-8-13 Engine and boiler seatings 22-8-13 Engines holding down bolts 1-9-13

Completion of pumping arrangements 1-9-13 Boilers fixed 28-8-13 Engines tried under steam 1-9-13

Main boiler safety valves adjusted 1-9-13 Thickness of adjusting washers Port 7/16 Steam 7/16

Material of Crank shaft Steel Identification Mark on Do. 601 JB Material of Thrust shaft Steel Identification Mark on Do. 1026 FLS

Material of Tunnel shafts Steel Identification Marks on Do. 1024 FLS Material of Screw shafts Steel Identification Marks on Do. 1025 FLS

Material of Steam Pipes Copper Test pressure 40 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c. These engines were completed with the exception of fitting the pistons & shafting in 1910. They have now been completely opened up, overhauled, cleaned & examined. The machinery on this vessel has been constructed under special survey in accordance with the approved plans & the rules of this Society, the materials & workmanship are good. The Boiler was tested by hydraulic pressure to 300 lbs found sound & tight. The machinery has been properly fitted & secured on board & on completion was tried under steam & found satisfactory. In our opinion the vessel is eligible for the use of L.M.C. 9.13.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.13.

JWR
15/9/13

The amount of Entry Fee	£	1	:	0	:	When applied for,
Special	£	8	:	17	:	9-9-13
Donkey Boiler Fee	£	:	:	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	:	22-9-13

Frank A. Stanger & J. G. Mackillop
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute TUE SEP 16 1913

Assigned

MACHINERY CERTIFICATE WRITTEN

