

REPORT ON MACHINERY.

No. 7966

Received at London Office SAT. JUN. 14. 1913

Date of writing Report 10-6-1913 When handed in at Local Office 12-6-1913 Port of MIDDLESBROUGH-ON-TEES
 No. in Survey held at Middlesbrough Date, First Survey 15th Jan. Last Survey 4th Jun 1913.
 Reg. Book. S.S. "Lasebo" (Number of Visits 39)
 185 on the

Master Built at Middlesbrough By whom built Smith's Dock Co. Ltd.
 Engines made at Middlesbrough By whom made Smith's Dock Co. Ltd. (No. 51) when made 1913
 Boilers made at Newcastle By whom made Hawthorn, Leslie & Co. Ltd. when made 1913
 Registered Horse Power Owners Neale & West, Ltd. Port belonging to Cardiff
 Nom. 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 No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12½", 21", 35" Length of Stroke 26" Revs. per minute Dia. of Screw shaft as per rule 7.55" Material of screw shaft as fitted 7.8" Iron
 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
 Is the 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
 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 2'-10½"
 Dia. of Tunnel shaft as per rule 6.57" Dia. of Crank shaft journals as per rule 6.9" Dia. of Crank pin 7½" Size of Crank webs 4½" x 10¾" Dia. of thrust shaft under
 collars 7½" Dia. of screw 9'-6" Pitch of Screw 10'-10" No. of Blades 4 State whether moveable No Total surface 32 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2½" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Donkey Engines One Sizes of Pumps 5 x 3½ x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" In Holds, &c. One 2"
 Ejector suction from engine room & slushwell & discharge overboard.
 No. of Bilge Injections 1 sizes 3½ 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 For bilge suction & winch pipes How are they protected Wood casing
 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 6.5.13 of Stern Tube 6.5.13 Screw shaft and Propeller 6.5.13
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

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

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers See Newcastle Rpt. No. 63881.
 Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
 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 in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 plate
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom
 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 End plates in steam space:
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules
 Material 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
 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. <i>None</i>	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 Safe
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:— *Two top & two bottom end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Assorted bolts & nuts etc.*

The foregoing is a correct description,

For Engines In Steers
11/6/13

Manufacturer. ←

Dates of Survey while building	During progress of work in shops --	1913 <i>Jan'y 15. 21. 24. 29. 31. Feby. 4. 7. 10. 14. 19. 24. 27. Mar 3. 5. 11. 14. 18. 19. 27. Apr 1. 2. 3. 4. 11. 17. 23. 26.</i>
	During erection on board vessel --	<i>May 1. 2. 6. 15. 19. 21. 24. 26. 29. 30. Jun 2. 4.</i>
	Total No. of visits	<i>39</i>

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—	Cylinders <i>11. 3. 13</i>	Slides <i>1. 5. 13</i>	Covers <i>1. 5. 13</i>	Pistons <i>4. 4. 13</i>	Rods <i>4. 4. 13</i>
Connecting rods	<i>4. 4. 13</i>	Crank shaft <i>24. 12. 12</i>	Thrust shaft <i>24. 12. 12</i>	Tunnel shafts <i>✓</i>	Screw shaft <i>31. 1. 13</i>
Stern tube	<i>1. 5. 13</i>	Steam pipes tested	<i>26. 5. 13</i>	Engine and boiler seatings	<i>6. 5. 13</i>
Engines holding down bolts	<i>19. 5. 13</i>				
Completion of pumping arrangements	<i>29. 5. 13</i>	Boilers fixed	<i>19. 5. 13</i>	Engines tried under steam	<i>29. 5. 13</i>
Main boiler safety valves adjusted	<i>29. 5. 13</i>	Thickness of adjusting washers	<i>PV $\frac{11}{32}$ SV $\frac{3}{8}$</i>		
Material of Crank shaft	<i>Steel</i>	Identification Mark on Do.	<i>3208WDA</i>	Material of Thrust shaft	<i>Iron</i>
Identification Mark on Do.	<i>3208WDA</i>	Material of Tunnel shafts	<i>✓</i>	Identification Marks on Do.	<i>✓</i>
Material of Screw shafts	<i>Iron</i>	Identification Marks on Do.	<i>3208WDA</i>	Material of Steam Pipes	<i>Solid drawn copper</i>
Test pressure	<i>360 lbs</i>				

General Remarks (State quality of workmanship, opinions as to class, &c.

The Engines of this vessel have been constructed under Special Survey, and are of good material and workmanship.

The Engines and Boiler of this vessel have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 6.13 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 6.13.

J.W.D.
14/6/13

PREP

The amount of Entry Fee	£ 1 : 0 :	When applied for,
Special	£ 7 : 13 :	<i>13. 6. 13</i>
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	<i>21/6/13</i>

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

Committee's Minute

Assigned

TUE JUN 17 1913

+ LMC 6.13

MACHINERY CERTIFICATE
WRITTEN.



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Foundation