

REPORT ON MACHINERY.

No. 26317

Received at London Office

Date of writing Report 10/6/13 When handed in at Local Office 10/6/13 Port of WED. LIN. 11. 1913

No. in Survey held at Hull Date, First Survey Mar 17th Last Survey Jun 3rd 1913.
 Reg. Book. 29 Sup. on the Steel Lug. "Yewgarth" (Number of Visits 17) Tons } Gross 118
 Net 30

Master Selby Built at Selby By whom built Cochrane & Sons Ltd When built 1913

Engines made at Hull By whom made C. W. Holmes & Co. Ltd when made 1913

Boilers made at Hull By whom made C. W. Holmes & Co. Ltd when made 1913

Registered Horse Power 79 Owners Sea Transport Co Ltd Port belonging to Liverpool

Nom. Horse Power as per Section 28 79 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Compound Inverted No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 17" x 36" Length of Stroke 14" Revs. per minute 118 Dia. of Screw shaft 7 3/4" Material of screw shaft Iron
 as per rule 7.73 as fitted 8 1/2"

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 lapped 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 no If two liners are fitted, is the shaft lapped or protected between the liners lapped Length of stern bush 3'-6"

Dia. of Tunnel shaft 7 1/4" Dia. of Crank shaft journals 7 1/2" Dia. of Crank pin 7 3/4" Size of Crank webs 14 1/2" x 5" Dia. of thrust shaft under collars 7 5/8" Dia. of screw 9'-0" Pitch of Screw 10'-3" No. of Blades 4 State whether moveable no Total surface 30 ft²

No. of Feed pumps One Diameter of ditto 2 3/4" Stroke 14 1/4" Can one be overhauled while the other is at work yes

No. of Bilge pumps One Diameter of ditto 2 3/4" Stroke 14 1/4" Can one be overhauled while the other is at work yes

No. of Donkey Engines One Sizes of Pumps 4 1/2" x 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps One 2" in Boiler room

In Engine Room Two 2" In Holds, &c. One 2" to cabin

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump yes 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 yes

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 None How are they protected no

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 22.4.13 of Stern Tube 22.4.13 Screw shaft and Propeller 22.4.13

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 Steel Company of Scotland

Total Heating Surface of Boilers 1500 Is Forced Draft fitted no No. and Description of Boilers One Cylindrical single-ended

Working Pressure 140 lbs Tested by hydraulic pressure to 280 lbs Date of test 7.5.13 No. of Certificate 1981

Can each boiler be worked separately yes Area of fire grate in each boiler 49.5 sq ft No. and Description of Safety Valves to each boiler 2 Spring-loaded Area of each valve 70" Pressure to which they are adjusted 145 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 12-11 1/2" Length 10'6" Material of shell plates Steel

Thickness 7/8" Range of tensile strength 28 tons Are the shell plates welded or flanged yes Descrip. of riveting: cir. seams OR Lap long. seams J.R. Webb Diameter of rivet holes in long. seams 3 1/2" Pitch of rivets 6 7/8" Lap of plates or width of butt straps 15"

Per centages of strength of longitudinal joint 91.1% Working pressure of shell by rules 146.1 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 30" x 26" No. and Description of Furnaces in each boiler 3 Plain Material Steel Outside diameter 3' 1/4"

Length of plain part 6'9" Thickness of plates 5 1/2" Description of longitudinal joint Welded No. of strengthening rings no

Working pressure of furnace by the rules 140 lbs Combustion chamber plates: Material Steel Thickness: Sides 7/8" Back 7/8" Top 7/8" Bottom 7/8"

Pitch of stays to ditto: Sides 10" x 9" Back 9 1/2" x 9 1/2" Top 10" x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 149 lbs

Material of stay Steel Diameter at smallest part 1.76 Area supported by each stay 90 Working pressure by rules 155 lbs How are stays secured DNW Material of stays Steel

Material Steel Thickness 1 1/2" Pitch of stays 17" x 16 1/2" Working pressure by rules 142.5 lbs Material of Front plates at bottom Steel

Diameter at smallest part 3.85 Area supported by each stay 280.3 Working pressure by rules 142.5 lbs Material of Front plates at bottom Steel

Thickness 1 3/8" Material of Lower back plate Steel Thickness 1 3/8" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 147.0"

Diameter of tubes 3 1/2" Pitch of tubes 4 5/8" Material of tube plates Steel Thickness: Front 1 3/16" Back 1 3/16" Mean pitch of stays 3 7/8" x 9 1/4"

Pitch across wide water spaces 14 1/2" Working pressures by rules 170 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 8 1/2" x 1 1/2" Length as per rule 33 9/16" Distance apart 8 1/2" x 10" Number and pitch of stays in each Two 10"

Working pressure by rules 146 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

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
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: — *Two top and two bottom end connecting rod bolts & nuts, One set of feed & bilge pump valves, Two Main bearings bolts, One set of coupling bolts, Quantity of assorted bolts & nuts & iron of different sizes.*

The foregoing is a correct description,

CHARLES D. HOLMES & Co. LTD Manufacturer.

Arthur Holmes DIRECTOR. 1913: — Mar 17, 27, April 14, 19, 21, 22, 25, 28, 30, May 4, 7, 15, 24, 26, 27

Dates of Survey while building: During progress of work in shops — *Jun 3*, During erection on board vessel — *17*, Total No. of visits

Is the approved plan of main boiler forwarded herewith *yes*.

Dates of Examination of principal parts—Cylinders *25.4.13* Slides *25.4.13* Covers *30.4.13* Pistons *28.4.13* Rods *25.4.13* Connecting rods *25.4.13* Crank shaft *15.5.13* Thrust shaft *15.5.13* Tunnel shafts *15.5.13* Screw shaft *21.4.13* Propeller *21.4.13* Stern tube *16.4.13* Steam pipes tested *24.5.13* Engine and boiler seatings *22.4.13* Engines holding down bolts *24.5.13* Completion of pumping arrangements *3.6.13* Boilers fixed *27.5.13* Engines tried under steam *27.5.13* Main boiler safety valves adjusted *27.5.13* Thickness of adjusting washers *after valve 1/4 For. val. 3/16* Material of Crank shaft *Steel* Identification Mark on Do. *1069 T.G.B.* Material of Thrust shaft *Steel* Identification Mark on Do. *1069 T.G.B.* Material of Tunnel shafts *Steel* Identification Marks on Do. *1069 T.G.B.* Material of Screw shafts *Iron* Identification Marks on Do. *1069 T.G.B.* Material of Steam Pipes *Solid drawn Copper* Test pressure *300 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & Boiler of this vessel have been constructed under special and in accordance with the Rules. The materials and workmanship are good & sound. The Boiler was tested by hydraulic pressure, and with the engines secured on board and tested under steam, they are now in safe-working condition & good order, and respectfully submit them as being eligible in our opinion to be classed with 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.
17/6/13

The amount of Entry Fee .. £ 1 : 0 : 0 When applied for.
Special .. £ 11 : 17 : 6
Donkey Boiler Fee .. £ .. : .. : ..
Travelling Expenses (if any) £ 4 : .. : ..

J.S. Mackillop
Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI. JUN. 13. 1913
Assigned *Home 6.13*

MANUFACTURE CERTIFICATE
WRITING



Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.