

REPORT ON MACHINERY.

Received at London Office SAT. 29 JUL 1916

Date of writing Report 19 When handed in at Local Office 26th July 1916 Port of Sunderland

No. in Survey held at Sunderland. Date, First Survey 19 Mar '15 Last Survey 25 July 1916
Reg. Book. on the Steel **SCREW STEAMER "USKMOUTH"** (Number of Visits) Gross 2320
Net 1273

Master J.W. Heasley Built at Sunderland By whom built J. Priestman & Co When built 1916

Engines made at Sunderland By whom made North Eastern Marine Eng^y Coy L^{td} when made 1916

Boilers made at Sunderland By whom made North Eastern Marine Eng^y Coy L^{td} when made 1916

Registered Horse Power Owners R.W. Jones & Co. Port belonging to Newport, Mon.

Nom. Horse Power as per Section 28 218. ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

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

Dia. of Cylinders 21-35-57 Length of Stroke 39 Revs. per minute 72 Dia. of Screw shaft 11.26 Material of screw shaft Iron
as per rule 10.58 as fitted 10.58 as per rule 11.05 as fitted 11.05

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 in the propeller boss Yes
If the liner is in more than one length are the joints burned 1 length 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4.0

Dia. of Tunnel shaft 11.8 Dia. of Crank shaft journals 11.05 Dia. of Crank pin 11.8 Size of Crank webs 18.25 Dia. of thrust shaft under collars 11.8 Dia. of screw 14.9 Pitch of Screw 15.6 No. of Blades 4 State whether moveable No Total surface 68 sq. ft.

No. of Feed pumps 2 Diameter of ditto 3 Stroke 21 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3.2 Stroke 21 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 8.5 x 11 x 10, 2 x 5.2 x 3.2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Three - 3" In Holds, &c. h^o 3 Hold 2-3" dia h^o 2 Hold 2-3" dia

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes: 3.2"

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 Yes

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 22/11/15 of Stern Tube 25/7/16 Screw shaft and Propeller 25/7/16

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper platform

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel J. Spencer & Sons

Total Heating Surface of Boilers 3340 Is Forced Draft fitted No No. and Description of Boilers 2: Cylindrical Multi Single

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 1/9/15 No. of Certificate 3312

Can each boiler be worked separately Yes Area of fire grate in each boiler 45 sq. ft. No. and Description of Safety Valves to each boiler 2: Direct Spring Area of each valve 49 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork About 2 feet Mean dia. of boilers 17'6" Length 10'6" Material of shell plates Steel

Thickness 1.5 Range of tensile strength 29.8 to 33 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap & Clinch

long. seams Double Rivet Diameter of rivet holes in long. seams 1.6 Pitch of rivets 9/4 Lap of plates or width of butt straps 18.25

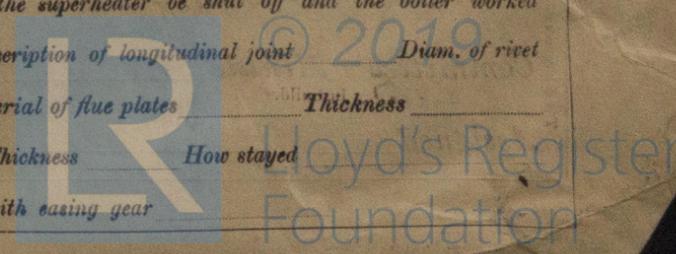
Per centages of strength of longitudinal joint rivets 87.44 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"

Size of compensating ring Plate Flange No. and Description of Furnaces in each boiler 3: plain Material Steel Outside diameter 3'1.75"

Length of plain part 6'1.25" Thickness of plates 3/4 Description of longitudinal joint Weld No. of strengthening rings None

Working pressure of furnace by the rules 182 lbs Combustion chamber plates: Material Steel Thickness: Sides 2.5 Back 3/4 Top 2.5 Bottom 2.5

W263-0135



IS A DONKEY BOILER FITTED? *None* ✓ If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 Main Bearing Bolts nuts, 2 P.R. Crosshead Bolts nuts, 2 Crank pin Bush Bolts nuts, 1 Set Shaft Coupling Bolts nuts, 2 Feed pump valves, 2 Bilge pump valves, 1/2 Cut Iron plate 1/2 Cut Iron Bars, 1 Cut Bolt, 10 Condenser tubes, 6 Boiler tubes, 2 Safety valve springs 2 Escape valve springs 1 set H.P. Piston rings, 1 set Air pump valves, 1 set Circulating pump valves, 6 Junk Ring Studs 1 Propeller

The foregoing is a correct description,
FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.

Geo. D. Hair 5/5/16

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1915 Mar 19 25 Apr 9 16 22 30 May 6 14 20 27 Jun 2 11 18 22 Jul 6 Sept Oct 4 5 Nov 5 9 12 15 22 27 30
During erection on board vessel -- Dec 8 11 15 21 24 29 31 Jan 5 7 12 17 25 29 Feb 3 8 10 16 23 29 Mar 9 16 20 26 27 30 Apr 6 13 14 26 May 2
Total No. of visits July 18 25 (58) Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 12/1/16 Slides 17/1/16 Covers 25/1/16 Pistons 12/1/16 Rods 12/1/16
Connecting rods 12/1/16 Crank shaft 25/1/16 Thrust shaft 25/1/16 Tunnel shafts 21 & 21/12/15 Screw shaft 21/12/15 Propeller 17/1/16
Stern tube 31/12/15 Steam pipes tested 14/4/16 Engine and boiler seatings 22/1/15 Engines holding down bolts 13/4/16
Completion of pumping arrangements 2/5/16 Boilers fixed 2/5/16 Engines tried under steam 2/5/16

Main boiler safety valves adjusted 2/5/16 Thickness of adjusting washers PORT BOILER. A.V. 3 1/2" F.V. 1 1/2" STB. BOILER 3 3/4" B.F.

Material of Crank shaft *Steel* Identification Mark on Do. 979 N. Material of Thrust shaft *Steel* Identification Mark on Do. 1442 B.F.

Material of Tunnel shafts *S. Iron* Identification Marks on Do. 1031 N. Material of Screw shafts *S. Iron* Identification Marks on Do. 1031 N.

Material of Steam Pipes *Copper* Test pressure 360 lbs. ✓

Is an installation fitted for burning oil fuel *No*. Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

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

The Engines and Boilers of this vessel were built under special Survey and the materials and workmanship are good. On completion they were examined under steam at moorings and found to work satisfactorily.

The machinery throughout is now in good and efficient condition and eligible in our opinion to have the record of L.M.C. 7,16 marked in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 7,16

G.D.H.
29.7.16

G.P.S.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 2 : :
Special ... £ 30 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 28 JUL 1916
When received, 17.8.1916 18/8/16

Wm. Austin & Co. Cooper
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
Assigned

TUE 1-AUG. 1916
+ L.M.C. 7,16

TUE. 22. AUG. 1916

MACHINERY CERTIFICATE
WRITTEN.



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