

## REPORT ON MACHINERY.

No. 26221

FRI. SEP.-4. 1914

Received at London Office

Date of writing Report 19 When handed in at Local Office 2nd Sept 1914 Port of Sunderland  
No. in Survey held at Sunderland Date, First Survey 14 December Last Survey 2nd Sept 1914  
Reg. Book. on the New Steel S. S. Oosterland (Number of Visits 43) Gross Tons 1960  
Master A. de. Yel. Built at Sunderland By whom built S. P. Austins Son Ltd Net 1134  
Engines made at Sunderland By whom made North Eastern Marine Eng Co Ltd When built 1914  
Boilers made at do By whom made do when made 1914  
Registered Horse Power Owners Stoomvaart Maatschappij Nederlandsche Lloyd Port belonging to Rotterdam  
Nom. Horse Power as per Section 28 200 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three  
Dia. of Cylinders 20" x 33" x 51" Length of Stroke 30" Revs. per minute 75 Dia. of Screw shaft as per rule 11 1/8" Material of screw shaft Steel  
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 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 Length of stern bush 4'-0"  
Dia. of Tunnel shaft as per rule 10 1/2" Dia. of Crank shaft journals as per rule 10 3/8" Dia. of Crank pin 10 7/8" Size of Crank webs 15 1/2" x 6 3/4" Dia. of thrust shaft under  
collars 10 1/8" Dia. of screw 14" x 9" Pitch of Screw 14" x 9" No. of Blades 4 State whether moveable no Total surface 684  
No. of Feed pumps Two Diameter of ditto 3" Stroke 21" Can one be overhauled while the other is at work yes  
No. of Bilge pumps Two Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work yes  
No. of Donkey Engines Two Sizes of Pumps 1 1/2" x 9" x 10 1/2", 1 1/2" x 5 1/2" x 5 No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room Three @ 3" diameter In Holds, &c. Two @ 3" dia in fwd hold  
No. of Bilge Injections One sizes 4" Connected to condenser, or to circulating pump A pump Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"  
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  
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  
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 24-11-14 of Stern Tube 15-5-14 Screw shaft and Propeller 18-5-14  
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform  
Manufacturers of Steel J. Spencer & Sons Ltd. Newburn Steel Works

BOILERS, &c.—(Letter for record) Is Forced Draft fitted no No. and Description of Boilers Two single ended  
Total Heating Surface of Boilers 3134 sq. ft. Tested by hydraulic pressure to 360 lbs Date of test 24-11-14 No. of Certificate 3203  
Working Pressure 180 lbs Area of fire grate in each boiler 41 sq. ft. No. and Description of Safety Valves to  
Can each boiler be worked separately yes each boiler Two spring loaded Area of each valve 4 x 9 sq. in 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 20" Mean dia. of boilers 13-3" Length 10-6" Material of shell plates Steel  
Thickness 1 1/8" Range of tensile strength 28 1/2 to 32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR  
long. seams T.R.D.B.S Diameter of rivet holes in long. seams 1 3/32" Pitch of rivets 9 3/4" Lap of plates or width of butt straps 9 1/2" x 19"  
Per centages of strength of longitudinal joint rivets 87.6 Working pressure of shell by rules 180 lbs Size of manhole in shell end 16 x 12  
Size of compensating ring dished No. and Description of Furnaces in each boiler Three plain Material Steel Outside diameter 2-11 3/4  
Length of plain part top 4 x 3 1/4" Thickness of plates crown 1 1/16" Description of longitudinal joint weld No. of strengthening rings 3  
bottom 60" bottom 1 1/16" Thickness: Sides 3/4" Back 13" Top 3/4" Bottom 3/4"  
Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 13" Top 3/4" Bottom 3/4"  
Pitch of stays to ditto: Sides 12 x 8 3/8" Back 11 1/16 x 10 3/8" Top 8 3/8 x 12 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181.5  
Material of stays Steel Area Diameter at smallest part 2-1" Area supported by each stay 100.5 sq. in Working pressure by rules 188 lbs End plates in steam space: Steel  
Material of stays Steel Thickness 1 1/4" Pitch of stays 22 x 16 3/8" How are stays secured D.N. Wash Working pressure by rules 180 lbs Material of stays Steel  
Diameter at smallest part 4-06" Area supported by each stay 404.25 sq. in Working pressure by rules 181.5 Material of Front plates at bottom Steel  
Thickness 3/4" Material of Lower back plate Steel Thickness 3/2" Greatest pitch of stays 14 3/8 x 10 3/8 Working pressure of plate by rules 180.6  
Diameter of tubes 3 1/4" Pitch of tubes 4 3/4 x 4 5/8 Material of tube plates Steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 10-6  
Pitch across wide water spaces 14.5" Working pressures by rules 180 lbs Girders to Chamber tops: Material Steel Depth and  
thickness of girder at centre 8 3/8 x 15 1/2 x 2 Length as per rule 2-6 7/8 Distance apart 9+12 Number and pitch of stays in each 2 @ 8 3/8  
Working pressure by rules 184 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked  
separately yes Diameter yes Length yes Thickness of shell plates yes Material Description of longitudinal joint yes Diam. of rivet  
holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes  
If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes  
Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

Two off bolts & nuts for top & bottom ends & main bearings. One set coupling bolts. One set each valves for all pumps. Assorted bolts nuts & rivs. One Propeller. One propeller shaft.

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

Geo. W. Veir

Manufacturer.

Manager. per O.E.H.

Dates of Survey while building { During progress of work in shops - - 1913. Dec 4 Jan 6-23 Feb 4 11 13 19 20 23 26 Mar. 6 13 18 20 24 26 Apr 2 3 4  
During erection on board vessel - - 8 14 24 27 29 30 May 4 7 8 13 15 18 19 22 24 29 Jul 6 14 30 Aug 5 17 19 28 Sep 2  
Total No. of visits 43.

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

yes

Dates of Examination of principal parts—Cylinders 6-3-14 Slides 30-4-14 Covers 9-5-14 Pistons 23-4-14 Rods 6-3-14  
Connecting rods 6-3-14 Crank shaft 14-4-14 Thrust shaft 18-7-14 Tunnel shafts 8-4-14 Screw shaft 30-4-14 Propeller 29-4-14  
Stern tube 29-4-14 Steam pipes tested 13-6-14. Engine and boiler seatings 24-4-14 Engines holding down bolts 5-8-14  
Completion of pumping arrangements 28-8-14. Boilers fixed 14-8-14 Engines tried under steam 19-8-14.  
Main boiler safety valves adjusted 19-8-14. Thickness of adjusting washers P.B. F+A 5/16" J.B. F 3/8" A 5/16"  
Material of Crank shaft Steel Identification Mark on Do. 5291 H.K. Material of Thrust shaft Steel Identification Mark on Do. 5295 H.K.  
Material of Tunnel shafts Steel Identification Marks on Do. 5292 5293 H.K. Material of Screw shafts Steel Identification Marks on Do. 149 A.L.  
Material of Steam Pipes Steel 8" dia x 1/4" thick Test pressure 540 lbs per sq inch  
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

yes

Is this machinery duplicate of a previous case.

no

If so, state name of vessel

yes

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

The machinery of this vessel has been built under special survey, the materials & workmanship are of good quality & the hydraulic tests of the boilers proved satisfactory. The whole of the machinery is securely fixed & was tried under steam & is in good & safe working condition & eligible in my opinion to be classed I have placed **LMC. 9-14.** in the Register Book.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC. 9. 14.

J.M. J.W.D. 4/9/14

William Butler

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

The amount of Entry Fee ... £ 2 : 0 0: When applied for,  
Special ... £ 30 : 0 0: 2-9-1914  
Donkey Boiler Fee ... £ : : :  
Travelling Expenses (if any) £ : : : When received, 26/9/14 28/9

Committee's Minute TUE SEP-8-1914

Assigned

+ LMC 9 14

MACHINERY CERTIFICATE  
WRITTEN.



© 2021

Lloyd's Register  
Foundation