

REPORT ON MACHINERY.

No. 24750

Port of Sunderland

Received at London Office

MAR 7 1911

No. in Survey held at Sunderland Date, first Survey 26 July 1910 Last Survey 15 March 1911
 Reg. Book. on the Steel Screw Steamer "Amicus" (Number of Visits 26) Tons { Gross 3695.22
 Master J. Loahby Built at Stockton By whom built Craig Taylor & Co. Ltd Net 2307.90
 Engines made at Sunderland By whom made H. P. Marine Eng Co. Ltd When built 1911
 Boilers made at 06 By whom made 06 when made 1911
 Registered Horse Power 340 Owners Empire Shipping Co. (Ld.) Port belonging to Barbiff
 Nom. Horse Power as per Section 28 340 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Vertical Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 25-42-68 Length of Stroke 45 Revs. per minute 63 Dia. of Screw shaft 4 1/2 as per rule 4 1/2 Material of steel
 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 yes 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 no Length of stern bush 5'-0"
 Dia. of Tunnel shaft 12 1/2 as per rule 13.08 Dia. of Crank shaft journals 13 1/2 as fitted 13 1/2 Dia. of Crank pin 13 1/2 Size of Crank webs 21x8 1/2 Dia. of thrust shaft under
 collars 13 1/2 Dia. of screw 17-3 Pitch of Screw 17-0 No. of Blades 4 State whether moveable no Total surface 94 sq
 No. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 2 Sizes of Pumps 7x9x9 6x4x6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3-3 1/2 In Holds, &c. 2-3 1/2 in each hold 1-2-3
 After hold 3-3 1/2 Tunnel 1-3 1/2
 No. of Bilge Injections 1 sizes 4 1/2 Connected to condenser, or to circulating pump yes 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 no
 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 20.1.11 of Stern Tube 15-2-11 Screw shaft and Propeller 15-2-11
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record no) Manufacturers of Steel J. Spencer & Son Ltd Newburn
 Total Heating Surface of Boilers 5302 sq Is Forced Draft fitted no No. and Description of Boilers 2 P.P. Multitubular
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 9-11-10 No. of Certificate 2872
 Can each boiler be worked separately yes Area of fire grate in each boiler 62 sq No. and Description of Safety Valves to
 each boiler 2 direct spring Area of each valve 7.070 Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 2 feet Mean dia. of boilers 16-3 1/2 Length 11-0 Material of shell plates steel
 Thickness 1 1/4 Range of tensile strength 28 1/2 to 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR. Lap
 long. seams DR. Lap Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 9 1/2 Lap of plates or width of butt straps 20 1/4
 Per centages of strength of longitudinal joint 86.5 Working pressure of shell by rules 180 Size of manhole in shell End 16x12
 Size of compensating ring plate disk No. and Description of Furnaces in each boiler 4 plain Material steel Outside diameter 41 1/4
 Length of plain part top 6-8 1/2 Thickness of plates bottom 6 1/4 Description of longitudinal joint weld No. of strengthening rings 25
 Working pressure of furnace by the rules 180 Combustion chamber plates: Material steel Thickness: Sides 3 1/2 Back 3 1/2 Top 3 1/2 Bottom 3 1/2
 Pitch of stays to ditto: Sides 12 1/2 x 8 1/2 Back 12 x 11 Top 12 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181
 Material of stays steel Diameter at smallest part 2.01 Area supported by each stay 132 Working pressure by rules 80 End plates in steam space:
 Material steel Thickness 1 1/2 Pitch of stays 24 x 23 1/2 How are stays secured nuts Working pressure by rules 181 Material of stays steel
 Diameter at smallest part 3.53 Area supported by each stay 564 Working pressure by rules 81 Material of Front plates at bottom steel
 Thickness 3 1/4 Material of Lower back plate steel Thickness 1 1/2 Greatest pitch of stays 14 1/2 x 11 Working pressure of plate by rules 83
 Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates steel Thickness: Front 3 1/4 Back 3 1/4 Mean pitch of stays 10 1/2
 Pitch across wide water spaces 14 1/2 Working pressures by rules 185 Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 8 1/2 x 2 Length as per rule 30 Distance apart 12 1/2 Number and pitch of stays in each 2-8 1/2
 Working pressure by rules 181 Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler worked
 separately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivet
 holes no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness no
 If stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed no
 Working pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear no

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 _____ Description of Safety
 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 _____
 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 _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— Propeller & Shaft, 2 each bolts & nuts for top & bottom ends & main bearings, set of coupling bolts & nuts, valves for all pumps, bolts, nuts & iron assorted.

The foregoing is a correct description,

NORTH EASTERN MARINE ENGINEERING CO LTD

Manufacturer.

Dates of Survey while building
 During progress of work in shops— 1910 July 26 Aug. 9. 15. 22. 29. Sep. 1. 5. 12. 20. 23. 27. Oct. 3. 11. 17. 19. 24. 31. Nov. 7. 9. 14. 21. 25. 30.
 During erection on board vessel— Dec. 9. 15. 1911 Jan. 4. 16. 23. 26. Feb. 15. 17. 21. 28. Mar. 1. 1911 Jan. 30. Mar. 7. 15.
 Total No. of visits 26

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

Dates of Examination of principal parts—Cylinders 23. 9-10 Slides 15-12-10 Covers 15-12-10 Pistons 24-10-10 Rods 15. 12-10
 Connecting rods 1-9-10 Crank shaft 31-10-10 Thrust shaft 23-9-10 Tunnel shafts 24-10-10 Screw shaft 23-1-11 Propeller 6-1-11
 Stern tube 24-10-10 Steam pipes tested 21-2-11 Engine and boiler seatings 30. 1. 11 Engines holding down bolts 21-2-11
 Completion of pumping arrangements 28. 2-11 Boilers fixed 21-2-11 Engines tried under steam 28-2-11
 Main boiler safety valves adjusted 28. 2. 11 Thickness of adjusting washers *PA 3 1/2 SA 4 1/2*
 Material of Crank shaft *Super steel* Identification Mark on Do. *1383-4 2400-1-2-3 HK* Material of Thrust shaft *Super steel* Identification Mark on Do. *2440 HK*
 Material of Tunnel shafts *A* Identification Marks on Do. *5950-1-7 5963-4-9 K.H.* Material of Screw shafts *A* Identification Marks on Do. *3867 2469 PA HK*
 Material of Steam Pipes *Seamless copper 4 length 5 1/2 x 5 1/2* Test pressure 400 lb

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

The machinery of this vessel has been constructed under special survey. The material and workmanship found good and efficient, fitted and tested in accordance with the rules and eligible in our opinion for classification with record of + LMC 3-11

It is submitted that this vessel is eligible for THE RECORD. + LMC 3.11.

J.W.D. 28/3/11 *Q.R.R.*

The amount of Entry Fee.. £ 3 : : When applied for, *1.3.1911*
 Special .. £ 37 : 0 : :
 Donkey Boiler Fee .. £ : : :
 Travelling Expenses (if any) £ : : :
 When received, *10.3.1911*
E. Stoddart & W. Morrison
 Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 31 MAR 1911

Assigned

+ L.M.C. 3.11

MACHINERY CERTIFICATE
 WRITTEN.



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Lloyd's Register
 Foundation

Rpt. 5a

Date of visit

No. in Reg. Book.

Master

Engines ma

Boilers ma

Registered

MULTIT

(Letter for

Boilers

No. of Cert

safety valce

Are they fit

Smallest dis

Material of

Descrip. of

Lap of plat

rules 10

boiler 2

Description

plates: Ma

Top 10" x 7

smallest par

Pitch of sta

Area suppo

Lower back

Pitch of tub

water spaces

girder at ce

Working pr

separately

holes

If stiffened u

Working pre

Dates of Survey while building

GENERAL

Special

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Assigned

Certificate (if required) to be sent to Committee's Minute.