

REPORT ON MACHINERY.

No. 24761

Port of Sunderland

Received at London Office

FRI. 17 MAR 1911

No. in Survey held at Sunderland Date, first Survey 6 July 1910 Last Survey 1st March 1911

Reg. Book. on the Steel Screw Steamer "Stockwood" (Number of Vests)

Master Hansen Built at Sunderland By whom built S.P. Austin & Co. Ltd Tons { Gross 1472 Net 854 When built 1911

Engines made at Sunderland By whom made S. Parnis & Co. Ltd when made 1911

Boilers made at do By whom made do when made 1911

Registered Horse Power Owners W. Long & Co. Ltd. Port belonging to London

Nom. Horse Power as per Section 28 170 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 19"-31"-51" Length of Stroke 36" Revs. per minute 73 Dia. of Screw shaft as per rule 11.07" Material of Steel screw shaft

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 yes Length of stern bush 3'-9"

Dia. of Tunnel shaft as per rule 9.58" Dia. of Crank shaft journals as per rule 10.06" Dia. of Crank pin 10 1/4" Size of Crank webs 6 1/2 x 15 1/2" Dia. of thrust shaft under collars 10 1/4" Dia. of screw 14'-0" Pitch of Screw 14'-6" No. of Blades 4 State whether moveable no Total surface 61 #

No. of Feed pumps 2 Diameter of ditto 3" Stroke 16 1/2" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 16 1/2" Can one be overhauled while the other is at work yes

No. of Donkey Engines 3 Sizes of Pumps 2 BALLAST FEED 7x9x9 6x4x6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3 - 2 1/2" DUPLEX In Holds, &c. 2 in each 3" dia. 1-3" tunnel

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 2 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 28-9-10 of Stern Tube 31-1-11 Screw shaft and Propeller 3-2-11

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Spencer & Co. Newcastle

Total Heating Surface of Boilers 2634 # Is Forced Draft fitted no No. and Description of Boilers 1 S.P. multitubular

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 1-9-10 No. of Certificate 2858

Can each boiler be worked separately yes Area of fire grate in each boiler 60 # No. and Description of Safety Valves to each boiler two direct pump Area of each valve 8.29 # 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 ft. Mean dia. of boilers 16'-3 1/2" Length 10'-9" Material of shell plates steel

Thickness 1 3/32" 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 5/16" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 19 1/2"

Per centages of strength of longitudinal joint rivets 84.8 Working pressure of shell by rules 181 Size of manhole in shell End 16 x 12

Size of compensating ring plate drilled No. and Description of Furnaces in each boiler 4 Deighton Material steel Outside diameter 4 1/2"

Length of plain part top 1 1/2" Thickness of plates crown 1 1/2" Description of longitudinal joint weld No. of strengthening rings -

Working pressure of furnace by the rules 182 Combustion chamber plates: Material Steel Thickness: Sides 25 1/2" Back 25 1/2" Top 25 1/2" Bottom 25 1/2"

Pitch of stays to ditto: Sides 8 1/2 x 2 1/8" Back 11 1/8 x 9 1/8" Top 8 1/2 x 2 1/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180

Material of stays Steel Diameter at smallest part 1.63" Area supported by each stay 104.5 Working pressure by rules 180.4 End plates in steam space: Material Steel Thickness 1 3/8" Pitch of stays 23 1/2 x 20 1/2" How are stays secured DR & W Working pressure by rules 182 Material of stays Steel

Diameter at smallest part 3.29" Area supported by each stay 487 Working pressure by rules 181 Material of Front plates at bottom Steel

Thickness 13 1/16" Material of Lower back plate Steel Thickness 32" Greatest pitch of stays 4 1/2 x 9 1/2" Working pressure of plate by rules 187

Diameter of tubes 3 1/4" Pitch of tubes 4 5/8 x 4 5/8" Material of tube plates Steel Thickness: Front 13 1/16" Back 13 1/16" Mean pitch of stays 10 1/4"

Pitch across wide water spaces 4 1/2" Working pressures by rules 215 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 x 2 1/2" Length as per rule 29 1/2" Distance apart 12 1/8" Number and pitch of stays in each 2 - 8 1/4"

Working pressure by rules 182 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked separately yes

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 Attached
 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 Sa
 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, 2 each bolts & nuts for top
Bottom Pins & main bearings, set of Coupling bolts & nuts
valves for all pumps, bolts nuts & bar iron assorted

The foregoing is a correct description,
NORTH EASTERN MARINE ENGINEERING CO LTD Manufacturer.
Walter Reuther

Dates of Survey while building
 During progress of work in shops— 1910 Jul 6, 8, 13, 14, 20, 23 Aug 8, 9, 11, 12, 15, 22, 25, 29 Sep 1, 5, 9, 12, 13, 23, 28 Oct 3
 During erection on board vessel— 1911 Jan 31, Feb 3, 6, 8, 16, Mar 1
 Total No. of visits (28) Is the approved plan of main boiler forwarded herewith yes
 " " " donkey " " yes

Dates of Examination of principal parts—Cylinders 29-8-10 Slides 3-10-10 Covers 3-10-10 Pistons 3-10-10 Rods 3-10-10
 Connecting rods 3-10-10 Crank shaft 2-7-10 Thrust shaft 5-9-10 Tunnel shafts 12-9-10 Screw shaft 9-9-10 Propeller 9-9-10
 Stern tube 3-10-10 Steam pipes tested 3-2-11 Engine and boiler seatings 28-9-10 Engines holding down bolts 6-2-11
 Completion of pumping arrangements 8-2-11 Boilers fixed 6-2-11 Engines tried under steam 8-2-11
 Main boiler safety valves adjusted 8-2-11 Thickness of adjusting washers 13/32" 5/16"
 Material of Crank shaft cast steel Identification Mark on Do. 504 H.S. Material of Thrust shaft cast steel Identification Mark on Do. 1497 AT
 Material of Tunnel shafts α Identification Marks on Do. 1472-3 H.S. 1483-4 AT.P. Material of Screw shafts α Identification Marks on Do. 1479 AT
 Material of Steam Pipes length Copper seamless 5 dia x 6 lbs. Test pressure 400 lbs

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 my 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.
17/3/11

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

The amount of Entry Fee.. £ 2 : : : When applied for.
 Special £ 25 : 10 : : : 12-3-11
 Donkey Boiler Fee £ : : : :
 Travelling Expenses (if any) £ : : : : 17-3-11

Committee's Minute **TUE. 21 MAR 1911**
 Assigned + LMC 3.11

