

REPORT ON MACHINERY.

No. 22311.

Hul. 17001

Port of Sunderland

Received at London Office

1905 JUL 20 1905

No. in Survey held at SunderlandDate, first Survey 27th March Last Survey 10th June 1905

Reg. Book.

1696 on the Steel Screw Steamer "SUNNYSIDE"(Number of Visits 16)

Master

Built at GooleBy whom built Goole Shipbuilding Co

Tons

Gross

Net

When built 1905Engines made at SunderlandBy whom made MacCall & Pollock (Ld)when made 1905Boilers made at SunderlandBy whom made MacCall & Pollock (Ld)when made 1905

Registered Horse Power

Owners Wm. & S. G. G. G.Port belonging to SunderlandNom. Horse Power as per Section 28 94Is Refrigerating Machinery fitted noIs Electric Light fitted no

ENGINES, &c.—Description of Engines

Compound, InvertedNo. of Cylinders TwoNo. of Cranks TwoDia. of Cylinders 20-44Length of Stroke 27Revs. per minute 80

Dia. of Screw shaft

as per rule 8 1/2as fitted 9Material of cast 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 —

If two

liners are fitted, is the shaft lapped or protected between the liners —Length of stern bush 3-0

Dia. of Tunnel shaft

as per rule 8 1/2

Dia. of Crank shaft journals

as per rule 8 1/2Dia. of Crank pin 8 1/2Size of Crank webs 14x6

Dia. of thrust shaft under

collars 8 1/2Dia. of screw 10-0Pitch of screw 14-0No. of blades fourState whether moveable noTotal surface 42 sqNo. of Feed pumps TwoDiameter of ditto 2 1/2Stroke 14Can one be overhauled while the other is at work yesNo. of Bilge pumps TwoDiameter of ditto 2 1/2Stroke 14Can one be overhauled while the other is at work yesNo. of Donkey Engines Two, duplexSizes of Pumps 5 1/2 x 3 1/2 x 5

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room one 2In Holds, &c. Two 2 1/2 inch diam. hold.No. of bilge injections one sizes 3 1/2Connected to condenser, or to circulating pump pumpIs a separate donkey suction fitted in Engine room & size yes 3Are all the bilge suction pipes fitted with roses yesAre the roses in Engine room always accessible yesAre the sluices on Engine room bulkheads always accessible noneAre all connections with the sea direct on the skin of the ship yesAre they Valves or Cocks Valves & CocksAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yesAre the discharge pipes above or below the deep water line aboveAre they each fitted with a discharge valve always accessible on the plating of the vessel yesAre the blow off cocks fitted with a spigot and brass covering plate yesWhat pipes are carried through the bunkers for hold & fuelHow are they protected and casingAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock never Is the screw shaft tunnel watertight —Is it fitted with a watertight door —worked from —

BOILERS, &c.—

(Letter for record S)Total Heating Surface of Boilers 1492 sqIs forced draft fitted noNo. and Description of Boilers One single ended Cyl. Mult.Working Pressure 130 lbTested by hydraulic pressure to 260 lbDate of test 24/5/05Can each boiler be worked separately —Area of fire grate in each boiler 51 sq

No. and Description of safety valves to

each boiler Two direct openingArea of each valve 4.0 sqPressure to which they are adjusted 135 lbAre they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 12Mean dia. of boilers 13-3Length 10-0Thickness 1/8Range of tensile strength 28 1/2 to 32 tonsAre they welded or flanged noDescrip. of riveting: cir. seams lap 5R.long. seams 5R8-5RDiameter of rivet holes in long. seams 1 1/8Pitch of rivets 5 1/8Lap of plates or width of butt straps 11 1/2

Per centages of strength of longitudinal joint

rivets 80.85plate 86.28Working pressure of shell by rules 135.2 lbSize of manhole in shell end 16x12Size of compensating ring flangedNo. and Description of Furnaces in each boiler Two, plainMaterial steel

Length of plain part

top 7 1/2

Thickness of plates

crown 5/8Description of longitudinal joint WeldNo. of strengthening rings noneWorking pressure of furnace by the rules 130.2 lbCombustion chamber plates: Material steelThickness: Sides 9/16Back 9/16Top 9/16Bottom 13/16Pitch of stays to ditto: Sides 7/2 x 10 1/4Back 9 1/8 x 8 3/8Top 7 x 9 1/4If stays are fitted with nuts or riveted heads noneWorking pressure by rules 135.5 lbMaterial of stays steelDiameter at smallest part 1 3/8 x 1 1/2Area supported by each stay 83 x 102Working pressure by rules 47 x 158 lbMaterial steelThickness 1 1/2Pitch of stays 22 1/2 x 14 1/2How are stays secured 5R.Working pressure by rules 132.9 lbMaterial of stays steelDiameter at smallest part 2 1/4Area supported by each stay 326 0Working pressure by rules 124.7 lbMaterial of Front plates at bottom steelThickness 1/8Material of Lower back plate steelThickness 1/8Greatest pitch of stays 12 1/4Working pressure of plate by rules 131.9 lbDiameter of tubes 3 1/4Pitch of tubes 4 1/2 x 4 1/2Material of tube plates steelThickness: Front 1/8Back 1/8Mean pitch of stays 11 1/2Pitch across wide water spaces 13 1/2Working pressures by rules 133.8 lbGirders to Chamber tops: Material steel

Depth and

thickness of girder at centre 6 1/2 x 1 1/2Length as per rule 26 1/2Distance apart 9 1/4Number and pitch of Stays in each Two 7Working pressure by rules 133.4 lbSuperheater 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 —

Foundation

Working pressure of end plates —Area of safety valves to superheater —Are they fitted with easing gear —

Foundation

Working pressure of end plates —Area of safety valves to superheater —Are they fitted with easing gear —

Foundation

Working pressure of end plates —Area of safety valves to superheater —Are they fitted with easing gear —

Foundation

Working pressure of end plates —Area of safety valves to superheater —Are they fitted with easing gear —

Foundation

DONKEY BOILER— No. *one* Description *Vertical with two cross tubes*
 Made at *Strickton* By whom made *T. Audrum (P. 21)* When made *1905* Where fixed *Strickton*
 Working pressure *90 lb* tested by hydraulic pressure to *180 lb* No. of Certificate *3443* Fire grate area *14.8* Description of safety valves *Direct spring*
 No. of safety valves *one* Area of each *7.2* Pressure to which they are adjusted *90 lb* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *5-0* Length *9-0* Material of shell plates *steel* Thickness *3/8* Range of tensile strength *24.5* Descrip. of riveting long. seams *Lap double riveted* Dia. of rivet holes *13/16* Whether punched or drilled *drilled* Pitch of rivets *2 3/4*
 Lap of plating *4 1/2* Per centage of strength of joint *85.7* Rivets *85.7* Thickness of shell crown plates *1/2* Radius of do. *3-9* No. of Stays to do. *none*
 Dia. of stays. *—* Diameter of furnace *Top 3-11 Bottom 4-5* Length of furnace *3-7* Thickness of furnace plates *1/2* Description of joint *Lap single riveted* Thickness of furnace crown plates *7/8* Stayed by *bracing* Working pressure of shell by rules *91.5 lb*
 Working pressure of furnace by rules *91 lb* Diameter of uptake *13* Thickness of uptake plates *3/8* Thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *One set of coupling bolts + nuts, two each top end, bottom end + main bearing bolts + nuts, one set of feed + trip pump valves, 3 condenser tubes, 3 boiler tubes, 4 etc.*

The foregoing is a correct description,

Manufacturer.

MAC COLL & POLLOCK, LTD

James MacColl
Managing Director

Dates of Survey while building { During progress of work in shops - } 1905:- Mar. 27, Apr. 4, 8, 13, 18, 26, May 1, 9, 12, 15, 17, 24, 26 June 5, 8, 10.
 { During erection on board vessel - } *May 17, June 28.*
 Total No. of visits *16 - (88d)* Is the approved plan of main boiler forwarded herewith *yes*
 " " " donkey " " " *no*

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

The Machinery of this Vessel has been constructed under special survey, the material & workmanship sound and good, the boilers & steam pipe have been tested by hydraulic pressure in accordance with the Rules, the machinery worked satisfactorily & the safety valves have been adjusted under steam to their working pressure

*This vessel is Eligible in Our opinion to have the Notation of * L M C 6.05 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + LMC 6.05

The amount of Entry Fee. £ 1 : :
 Special .. £ 14 : :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 20.6.1905
 When received, 15.7.05

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

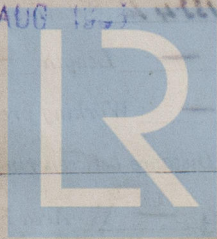
Committee's Minute

FRI. 21 JUL 1905

TUES. 22 AUG 1905

Assigned

MACHINERY CERTIFICATE
 WRITTEN



© 2020

Lloyd's Register
 Foundation