

REPORT ON MACHINERY

Std. No. 22485
New No. 49600

Port of Sunderland

Received at London Office WED. 1 NOV 1906

No. in Survey held at Sunderland Date, first Survey 27 June 1905 Last Survey 10 October 1905
 Reg. Book. (Number of Visits 19)
 Master J. Davies of the Steel screw steamer "Gillygate" Built at North Shields By whom built Smith's Dock Co Tons { Gross 207 Net 64 When built 1905
 Engines made at Sunderland By whom made MacColl & Pollock Lim^d when made 1905
 Boilers made at Sunderland By whom made MacColl & Pollock Lim^d when made 1905
 Registered Horse Power _____ Owners Phoenix Trawling Co. Port belonging to London
 Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12", 20", 32" Length of Stroke 23" Revs. per minute 106 Dia. of Screw shaft as per rule 6.9" Material of screw shaft steel
 as fitted 7 3/16"
 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 30"
 Dia. of Tunnel shaft as per rule 6.1" Dia. of Crank shaft journals as per rule 6.4" Dia. of Crank pin 6 3/4" Size of Crank webs 4 1/2 x 10 1/2" Dia. of thrust shaft under collars 6 3/4" Dia. of screw 8.6" Pitch of screw 11.0" No. of blades 4 State whether moveable no Total surface 29.5 sq ft
 No. of Feed pumps one Diameter of ditto 2 1/4" Stroke 11 1/2" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps one Diameter of ditto 2 1/4" Stroke 11 1/2" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines one Sizes of Pumps 5 1/4" x 3 1/2" x 5" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room two of 2" In Holds, &c. one of 2"
 No. of bilge injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size Ejector 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
 What pipes are carried through the bunkers Forward Bilge suction How are they protected wood casing
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock now & then Is the screw shaft tunnel watertight no
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1330 sq ft Is forced draft fitted no
 No. and Description of Boilers one single ended cylindrical Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs
 Date of test 29.9.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 35 sq ft No. and Description of safety valves to each boiler 2 spring Area of each valve 3.98 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 11" Mean dia. of boilers 12.6" Length 10.3" Material of shell plates Steel
 Thickness 1 1/32" Range of tensile strength 28 1/2/32 Are they welded or flanged no Descrip. of riveting: cir. seams d.r. lap long. seams d.r. double buttchop
 Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 15 1/2"
 Per centages of strength of longitudinal joint rivets 92.5 Working pressure of shell by rules 182.9 lbs Size of manhole in shell 16 x 12"
 plate 85.4
 Size of compensating ring 7 x 1 1/2" No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 4 1/2"
 Length of plain part top 6.0" bottom 7.3" Thickness of plates crown 49/164 Description of longitudinal joint weld No. of strengthening rings ✓
 Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1"
 Pitch of stays to ditto: Sides 9 x 9 3/4" Back 11 x 7 3/4" Top 8 3/4 x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180.4 lbs
 Material of stays steel Diameter at smallest part 1.57 x 1.43 Area supported by each stay 85.7 x 94 Working pressure by rules 201 x 169 End plates in steam space: Material steel Thickness 1 3/16" Pitch of stays 18 3/4 x 18" How are stays secured double nuts Working pressure by rules 187 lbs Material of stays steel
 Diameter at smallest part 2.78 Area supported by each stay 337 Working pressure by rules 180.7 Material of Front plates at bottom steel
 Thickness 27/32" Material of Lower back plate steel Thickness 13/16" Greatest pitch of stays 13 1/4" Working pressure of plate by rules 193.5 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 5/8 x 4 7/8" Material of tube plates steel Thickness: Front 27/32" Back 27/32" Mean pitch of stays 11 7/8"
 Pitch across wide water spaces 15 1/4" Working pressures by rules 198 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 x 12 1/2" Length as per rule 31 3/4" Distance apart 9' Number and pitch of Stays in each 2 - 8 3/4"
 Working pressure by rules 182.1 lbs Superheater 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 2020 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 ✓

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship

W1115-0050

Lloyd's Register Foundation

DONKEY BOILER— No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— 2 Top end, 2 Bottom, 2 Main Bearing, & 1 set-couplings bolts, 1 set-feed & bilge pump Valves, 1 propeller, 1 H.P. piston Valve, 1 Main feed check Valve, 1 donkey feed check valve, 1 set air and circulating pump Valves
Bolts & Nuts assorted and Iron of sizes

The foregoing is a correct description,

MAG COLL & POLLOCK, LTD

Manufacturer.

M. Pollock

Dates of Survey while building { During progress of work in shops - - } 1905:— June 27, July 3, 10, 18, 24, Aug 2, 14, 17, 21, Sept. 8, 14, 21, 26, 29,
{ During erection on board vessel - - } Oct 2, 4, 6, 9, 10,
Total No. of visits 19, Is the approved plan of main boiler forwarded herewith yes

General Remarks (State quality of workmanship, opinions as to class, &c. *The Machinery for this vessel has been constructed under special survey, the workmanship and materials used are both of good quality the Engines have been tried under steam & worked satisfactorily the main steam pipe has been tested to 400 lbs. & proved satisfactory under test*)

We beg to recommend that this vessel in our opinion is eligible in our opinion to have the record L.M.C. 10.05. in the Register Book

It is submitted that this vessel is eligible for THE RECORD L.M.C. 10.05.

Leonard & Hallcross.

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

The amount of Entry Fee. £ 1 : 0 : 0 When applied for,
Special £ 10 : 13 : 0 23rd Oct. 1905
Donkey Boiler Fee £ : : :
Travelling Expenses (if any) £ : : : 11. 11. 05

Committee's Minute FRI. 3 NOV 1905
Assigned + L.M.C. 10.05.

Certificate (if required) to be sent to Sunderland