

REPORT ON MACHINERY.

No. 8270

Port of West Hartlepool

No. in Survey held at West Hartlepool

Date, first Survey 15 September Last Survey 17 December 1890

Reg. Book.

on the screw Steamer

LANZIBAR

Received at London Office

Tons { Gross 2964.27
Net 1919.41
When built 1890

Master C. Mc Fee Built at West Hartlepool By whom built E. Withy & Co

Engines made at West Hartlepool By whom made Central Marine Eng Co when made 1890

Boilers made at West Hartlepool By whom made Central Marine Eng Co when made 1890

Registered Horse Power 300

Owners Lanzibar Steamship Co. Limd Port belonging to London

ENGINES, &c.

Description of Engines Triple Expansion, Inverted, Direct Acting, Surface Condensing No. of Cylinders 3 (3 Brands)
diam. of Cylinders 24 - 38 - 64 Length of Stroke 42 Rev. per minute 65 Point of Cut off, High Pressure .55 Low Pressure .55
Diameter of Screw shaft 11 3/4 Diam. of Tunnel shaft 11 3/4 Diam. of Crank shaft journals 11 3/4 Diam. of Crank pin 11 3/4 size of Crank webs 16 1/4 x 7 1/8
Diameter of screw 15 - 9 Pitch of screw Differential No. of blades 4 state whether moveable No total surface 76 sq feet
No. of Feed pumps 2 diameter of ditto 3 1/4 Stroke 26 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 diameter of ditto 4 Stroke 26 Can one be overhauled while the other is at work Yes
Where do they pump from After Main Hold Fore Main Hold & Fore Hold (P & S) Engine Room P.S.C
No. of Donkey Engines Two Size of Pumps Feed - 4" dia x 6" stroke Where do they pump from Feed - Sea, Hotwell & Tanks
Ballast - Sea, Tanks & Bilges.

Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
No. of bilge injections Two and sizes 5" dia Are they connected to condenser, or to circulating pump one is circulating pump
How are the pumps worked by screw from After Crosshead.
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 accessible at all times Yes
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes
When were stern tube, propeller, screw shaft, and all connections examined in dry dock previous to Launching 29 October 1890
Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from upper platform

BOILERS, &c.

No. of Boilers Two Description Multitubular, Angle Irised Material Steel (Iron tubes) Letter (for record) S
Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 21/11/90 No 2163
Description of superheating apparatus or steam chest Total Heating Surface in Two Boilers 3750 sq feet
Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately
No. of square feet of fire grate surface in each boiler 47 Description of safety valves Spring Loaded No. to each boiler Two
Area of each valve 7.07 sq feet Are they fitted with easing gear Yes No. of safety valves to superheater area of each valve
Are they fitted with easing gear Yes Smallest distance between boilers and bunkers 20" Diameter of boilers 14' - 9"
Length of boilers 10 - 0 description of riveting of shell long. seams A.B.S. tubular circum. seams Anti-lap tubular Thickness of shell plates 17/16
Diameter of rivet holes 13/16 - 13/8 whether punched or drilled Drilled pitch of rivets long 8 1/2 in 5 1/2 Lap of plating A.B.S. 19/16 lap 9 1/2
Percentage of strength of longitudinal joint 84.55% working pressure of shell by rules 162.6 lbs size of manholes in shell 16 x 12
Compensating rings 24 x 24 x 7/8 No. of Furnaces in each boiler Three Description of Furnaces Brown patent Ribbed
Diameter 43 1/2 length 6 - 7 thickness of plates 1/2 description of joint Welded if rings are fitted No
Length between rings working pressure of furnace by the rules 160 combustion chamber plating, thickness, sides 7/8 back 7/8 top 7/8
Stays to ditto, sides 8 3/8 x 7/8 back 8 1/2 x 8 top 8 1/4 x 8 stays are fitted with nuts or riveted heads Nuts working pressure of plating by
61.4 lbs Diameter of stays at smallest part 1.3837 working pressure of ditto by rules 161.4 lbs end plates in steam space, thickness 1 1/8
Stays to ditto 16 3/4 x 16 3/4 how stays are secured Double Nuts working pressure by rules 161.6 lbs diameter of stays at
at part 2.5367 working pressure by rules 162.0 lbs Front plates at bottom, thickness 3/4 Back plates, thickness 29/32
Pitch of stays 1/2 x 1/2 working pressure by rules 161.4 lbs Diameter of tubes 3/4 pitch of tubes 4 1/2 x 4 1/2 thickness of tube
front 5/32 back 23/32 how stayed Stay tubes pitch of stays 9 x 9 width of water spaces 8"
of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes
rivets working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings
between rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed
Superheater or steam chest; how connected to boiler

2 DONKEY BOILERS Description Iron Vertical with 3 Cross Water Tubes
Made at Stockton by whom made Sudron & Co Lim^d when made 25/9/90 where fixed Stokehole
Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 119 fire grate area description of safety
valves Spring loaded No. of safety valves One area of each 8.30 if fitted with easing gear Yes if steam from main boilers can
enter the donkey boiler No diameter of donkey boiler 5'-6" length 11'-6" description of riveting Long lap double
Thickness of shell plates 1/2" diameter of rivet holes 13/16" whether punched or drilled punched pitch of rivets 2 3/4" lap of plating 4 1/2"
per centage of strength of joint 40.4% thickness of crown plates 1/2" stayed by 5 Stays, 1 1/2" effective diameter
Diameter of furnace, top 4'-4" bottom 4'-10" length of furnace 4 1/4 feet thickness of plates 9/16" description of joint Lap single
Thickness of furnace crown plates 9/16" stayed by same as Shell Crown working pressure of shell by rules 82.7 lb
Working pressure of furnace by rules 81.8 lbs diameter of uptake 13" thickness of plates 7/16" thickness of water tubes 3/8"

SPARE GEAR. State the articles supplied:— One Propellor, One Feed pump & Chests Complete,
One set Connecting Rod Bolts (top & bottom ends) One set Main bearing Bolts
One set Coupling Bolts, One set A.P. Piston Springs, One set Feed & Bilge
pump Valves, bolts & nuts assorted, 8 Bars Iron Assorted.

The foregoing is a correct description,

FOR THE CENTRAL MARINE ENGINE WORKS.

Manufacturers of main Engines & Boilers Thomas Mudd.

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

The Main & Branch Steam pipes have been tested
by hydraulic pressure to 320 lbs per sq inch and found
tight & sound.

The Machinery has been constructed under special
survey, it has been tried under steam, the safety
valves adjusted, & found to work well, they have
been constructed of a good quality of workmanship
and are now in a safe & efficient working
condition, & eligible, in my opinion, to have + L.M.C. 12-90
recorded in the Register of the Society

It is submitted that the
vessel is eligible to have
+ L.M.C. 12-90 recorded

M.A.
29-12-90

The amount of Entry Fee .. £ 2 : 0 : 0 received by me,

Special .. £ 32 : 18 : 0

Donkey Boiler Fee .. £ : :

Certificate (if required) .. £ gratis 24-12-1890.

To be paid as per margin.

(Travelling Expenses, if any, £)

Committee's Minute FRI 2- JAN 91

TUES. 17 FEB 1891

+ L.M.C. 12/90

HPL363/166

Thomas R Blackie
Engineer-Surveyor (Lloyd's Register of British & Foreign Ships)

