

S.S. "Luso" - 15442 Report No. 24872
30/11/75

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING

ENGINEER SURVEYOR'S CERTIFICATE, & REPORT.

ENGINES.

Rev 1/12/75

Description *Comp'd. Int'l Cyl. 1 A. S. C. Engines*
Made by *J. Jones & Son.*
In the year *1875*
Present condition *New.*
Diameter of cylinders *1 of 32" diam 1 of 64" diam*
Length of stroke *33 ins.*
No. of revolutions per minute *about 72*
Point of cut off *variable 3" to 27"*
Paddle, or Screw *Screw*
Nominal Horse Power *170*
Diameter of screw, or of paddle wheel *15 ft.*
Pitch of screw *18 ft. - 6"*
No. of blades *Four* total surface *48 ft.*
No. of bilge pumps *Two* and size *5" diam*
Do they pump from each compartment *Yes.*
Is there provision made for pumping }
from the wings of the stoke hole } *No.*

Are all the bilge suction pipes fitted with roses *Yes.*
What vacuum and steam gauges are there attached to the engines and boilers *Steam gauge to each boiler, 1 steam, 1 vacuum and 1 back. pres gauge in E.R.*
No. of feed pumps *Two* and sizes *4" diam*
Description and size of } *8" Steam Cyl. 4" plunger double acting*
Donkey Engine... }
Will it feed the boilers, pump from the bilges, and pump on deck *Yes. and pumps through condenser.*
Can it be driven by steam } *Yes.*
from a separate boiler }
No. of bilge injections *One* and sizes *3 1/2" diam*
Are they fitted with non return valves *Yes.*
Is there a hand pump in the engine room *Yes*
Can it be worked by the main engines *Yes*
Is there a deck hose of sufficient length } *Yes*
to reach to any part of the vessel }

CONNECTIONS ON HULL.

Are all connections with the sea } *Yes.*
direct on the skin of the ship }
Are they Kingston valves or common cocks *Common cocks.*
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehole plates *Yes.*
Are the discharge pipes above or below the deep water line *Above*
Are they each fitted with a discharge valve on the plating of the vessel *Yes.*

Are any pipes carried through the bunkers *Bilge suction to fore hold.*
If so state how protected *Strong*
When was the stern tube, propellor, screw shaft, and all connections examined in dry dock *New*
How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Well arranged*
Have the bilge suction non-return valves fitted or not *No.*

BOILERS.

No. *Two*
on *Circular return Tubular.*
by *J. Jones & Son.*
Year *1875*
Condition *New*
Extensively repaired *Not yet.*
Pressure *80 lbs.*
Tested by Hydraulic pressure *Now*
Pressure tested *160. (Stated)*
Super-heating apparatus *(No.) 1 Steam chest to each boiler*
Describe it *699. erected - " - horizontal*
Can each boiler be worked separately *Yes*
Is each boiler fitted with a separate steam gauge *Yes*

Can the super-heater be shut off and the boilers worked separately *No superheater. Boilers can be worked separately*
No. of safety valves on each boiler *Two on each*
Description and area of each safety valve *Lever loaded. = 12.56 area each*
No. of square feet of fire-grate surface in each boiler *46 ft.*
Is there a separate blow off and brine cock on each boiler, independent of those on the vessel's skin *Yes.*
Is the screw shaft tunnel water tight and fitted with a sluice door on bulkhead *Yes.*
Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times *Yes.*

John Jones & Son Manufacturer.

I hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle)

Steam Vessel *"Luso"* owned by *Arnaud* at present registered in name of *Arnaud*
of the Port of *St Michael* of *656.50* Tons Register, and *170* Nominal Horse Power, *180 as per ship's register*
have been carefully inspected and examined by *Me* at *Liverpool* and found to be
at this date, viz., *30th November 1875* in good order and safe working condition.

J. G. Viningham
Engineer Surveyor to Lloyd's Register of Shipping.