

## LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

# ENGINEER SURVEYOR'S CERTIFICATE, & REPORT.

# ENGINES.

Description *Inverted Compound surface Condensing,*  
Made by *Messrs Readhead & Co South Shields,*  
In the year *1875,*  
Present condition *good,*  
Diameter of cylinder *HP 28, LP 50,*  
Length of stroke *33,*  
No. of revolutions per minute *75,*  
Point of cut off *<sup>1/2</sup> 78" of stroke,*  
Paddle, or Screw *Screw,*  
Nominal Horse Power *99,*  
Diameter of screw, or of paddle wheel *12-6,"*  
Pitch of screw *15-6" (mean)*  
No. of blades, *4* total surface *45 sq feet,*  
No. of bilge pumps *2* and size *3" dia x 16 1/2" stroke single a*  
Do they pump from each compartment *yes,*  
Is there provision made for pumping }  
from the wings of the stoke hole } *yes,*

Are all the bilge suction pipes fitted with roses *yes,*

What vacuum and steam gauges are there attached to the engines and boilers..... } *1 vacuum gaugl,  
1 Compound do,  
1 Steam in engine room,  
1 do " stokehole,*

No. of feed pumps *2* and sizes *3" dia x 16 1/2 stroke single acting,*

Description and size of } *Inverted cyl 6" dia x 9" stroke  
Donkey Engine... } Pump 4" " x 9" double acting.*

Will it feed the boilers, pump from the bilges, and pump on deck ..... } *yes,*

Can it be driven by steam from a separate boiler } *yes,*

No. of bilge injections *one* and sizes *4" dia<sup>r</sup>.*

*Is it a* 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 *no,*

Is there a deck hose of sufficient length to reach to any part of the vessel } *yes,*

# 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 Valves & Cocks,*

Are they fixed sufficiently high on }  
the ship's side to be seen } *all on round of ship except blow*  
without lifting the stokehole } *off cock which is near the bottom,*  
plates ..... } *and can be easily got at.*

Are the discharge pipes above or } *Above.*  
below the deep water line )

Are they each fitted with a discharge } *yes.*  
valve on the plating of the vessel )

Are any pipes carried through the bunkers *no,*

If so state how protected \_\_\_\_\_

When was the stern tube, )  
propellor, screw shaft, ) *new,*  
and all connections )  
examined in dry dock )

How are the pipes, cocks, and valves )  
arranged so as to prevent ) *non return valves,*  
an unintentional connection )  
between the sea and the bilge )

Have the bilge suctions non- )  
return valves fitted or not ) *not fitted,*

## BOILERS.

Number One,  
Description Cylindrical,  
Made by Messrs. Bradhead & Co.,  
In the year 1875,  
Present condition good,  
When last extensively repaired new,  
Working pressure 70 lbs per sq inch,  
When tested by Hydraulic pressure August 1875,  
To what pressure tested 140 lbs per sq inch,  
Any super-heating apparatus none,  
Describe it \_\_\_\_\_  
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. of safety valves on each boiler 2

Description and area of each safety valve cross weight dia  $4\frac{1}{2}$ " = 15 lbs pressure.

No. of square feet of fire-grate } 50  $\frac{7}{8}$ .  
surface in each boiler }

Is there a separate blow off and  
brine cock on each boiler, } yes.  
independent of those  
on the vessel's skin }

Is the screw shaft tunnel water  
tight and fitted with a } Tunnel watertight  
sluice door on bulkhead } Sluice door fitted.

Are all pipes, cocks, and roses in con-  
nection with these boilers acces- } yes.  
sible to the engineer at all times }

*Sam. Ratchford & Co. Manufacturer.*

I hereby certify that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel "Sagunto" owned by J. I. Sister of the Port of Valencia of 624.02 Tons Register, and 99 Nominal Horse Power, have been carefully inspected and examined by me at South Shields and found to be at this date, viz., October 9<sup>th</sup> 1875. in good order and safe working condition.

William Allison

*Engineer Surveyor to Lloyd's Register of Shipping.*