

18373 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rev 19/5/77

Description *Inverted, Compound, Surface Condensing.*  
 Made by *Mr. John Dickinson*  
 When *May 18 77* At *Sunderland.*  
 Diameter of cylinder *5 27" x 50"* Length of stroke *33"*  
one of each  
 No. of revolutions per minute *about 65*  
 Point of cut off *1/2 stroke.*  
 Diameter of screw shaft *9"*  
 Diameter of crank shaft journals *9"*  
 Diameter of screw, or of paddle wheel *12.6"*  
 Pitch of screw *16.6"*  
 No. of blades, *4* Total surface *40 sq. feet.*  
 No. of bilge pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*  
 Do they pump from each compartment *from Engine room & fore hold.*

Are all the bilge suction pipes fitted with roses *yes.*  
 No. of feed pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*  
 What gauges are there attached to the engines and boilers ... *1 steam gauge in Engine room*  
*1 " " in stokehole. 1 vacuum,*  
 Description and size of Donkey Pumps ... *1 inverted double acting 8" dia x 10" stroke*  
*1 " " single acting 4 1/2 x 6 " "*  
*The large one draws from sea tanks*  
 Where do they pump from ... *and bilges of engine room & fore hold.*  
*small one from sea and hotwell.*  
 No. of bilge injections *one* and sizes *4" dia.*  
 Are they connected to air, or circulating pumps *to circulating pump.*  
 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 (from line pipe)*

### MAIN BOILERS.

Number *one* Description *Cylindrical & Multitubular*  
 Made by *Mr. J. Dickinson.*  
 When *May 18 77* At *Sunderland.*  
 Working pressure *70 lbs per sq. inch.*  
 Tested by hydraulic pressure to *140 lbs.* Date *March 28/77*  
I was present, H. A.  
 Description of super-heating apparatus *none.*  
 Can each boiler be worked separately *only 1 boiler.*

Can the super-heater be shut off and the boilers worked separately }  
 Description and area of safety valves on each boiler ... *2 spring safety valves 7" dia.*  
*= 25 sq. ins area.*  
 No. of square feet of fire-grate surface in each boiler } *49 3/4.*  
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin } *yes.*  
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. .... } *yes (except the life pipe in fore hold when full)*

### DONKEY BOILER.

Description *Upright Cyl. with 3 cross tubes.*  
 Where fixed *in the stokehole.*  
 Working pressure *50 lbs per sq. inch.*

Tested by hydraulic pressure to *120 lbs (reported).* Date *March 6/77*  
 Description and area of safety valves *1 loaded dia 3" 1 cone & weight 2 1/2" = 11.9 area*  
 No. of square feet of fire grate *12.*

### PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship } *yes.*  
 Are they Kingston valves or common cocks ... } *stop valves and cocks.*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... } *yes (except ash and donkey boiler cock)*  
 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.*

What pipes are carried through the bunkers *none.*  
 How are they protected .....  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock } *new.*  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge } *yes.*  
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead } *yes*

*John Dickinson*

Manufacturer. *Except of the Donkey boiler* I was present on April 25<sup>th</sup> when steam was raised and the engine worked. Steam 70 lbs, revs 27 1/2. Revs 65 and on May 7<sup>th</sup> when safety valves were tested, all satisfactory. H. A.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood)

Screw (or Paddle) Steam Vessel *"Ferndale"* owned by *Dixon & Nelson*

at the Port of *Sunderland* of *604* Tons Register, and *95* Registered Horse Power,

which they have been carefully inspected and examined by me at *Sunderland.*

to be at this date, viz., *May 12<sup>th</sup>* 18 *77* in good order and safe working condition.

for Survey £ 4 : 15 :

if any, £ *5 : 0* Received 18/5/77

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

*WAS*



Report (if any) on Hull of Vessel. Port *Sunderland.* No. *11660.*

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