

# LOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rec'd 8/6/76

Description *Compound, Inverted, Direct Acting*  
 Made by *Scott & Co. Ltd. Greenock*  
 When *1876* At *Greenock*  
 Diameter of cylinders *22" & 40"* Length of stroke *30"*  
 No. of revolutions per minute *about 46*  
 Point of cut off *Variable*  
 Diameter of screw shaft *7 5/8"*  
 Diameter of crank shaft journals *7 5/8"*  
 Diameter of screw, ~~or of paddle wheel~~ *10ft*  
 Pitch of screw *14" & 6"*  
 No. of blades, *4* Total surface *28 ft*  
 No. of bilge pumps *Two* and sizes *3" dia. x 12 3/4"*  
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *Two* and sizes *3" dia. x 12 3/4"*  
 What gauges are there attached to the engines and boilers ... *One Steam, One Vacuum, in Engine Room & One Steam in stokehold*  
 Description and size of Donkey Pumps ... *Double Acting 3 1/2 x 8" Stroke*  
 Where do they pump from ... *from the sea, Bilge & Hot Well*  
 No. of bilge injections *One* and sizes *3"*  
 Are they connected to air, or circulating pumps *to Circulating*  
 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*

### MAIN BOILERS.

Number *One* Description *Round, Horizontal*  
 Made by *Scott & Co. Ltd. Greenock*  
 When *1876* At *Greenock*  
 Working pressure *65 lbs*  
 Tested by hydraulic pressure to *130*, Date *March/76*  
 Description of super-heating apparatus *None*  
 Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately  
 Description and area of safety valves on each boiler ... *Two, Direct Spring, each 10.32" area*  
 No. of square feet of fire-grate surface in each boiler *about 40ft*  
 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*

### DONKEY BOILER.

Description *Round, Vertical*  
 Where fixed *in Stokehold (forward) at middle line*  
 Working pressure *50 lbs.*

Tested by hydraulic pressure to *100 lbs*, Date *March*  
 Description and area of safety valves *Two, Lever with weights, each 1 1/2" area*  
 No. of square feet of fire grate *about 4ft.*

### 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 ... *Screw down Valves & Cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *They are all fitted above the turn of the bilge*  
 Are the discharge pipes above or below the deep water line *Below*  
 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 *on slip previous to being launched*  
 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*

*Scott & Co.* Manufacturer.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or ~~Wooden~~) Screw (or ~~Paddle~~) Steam Vessel *"Stella"* owned by *the Government of New Zealand* of the Port of *Wellington N.Z.* of *156* Tons Register, and *Twenty* Registered Horse Power, and that they have been carefully inspected and examined by me at *Greenock* and found to be at this date, viz., *31<sup>st</sup> May* 18 *76* in good order and safe working condition.

*Fees paid £3.10/-*  
 *June 1876*

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

