

LOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 8/6/76

Description *Compound, Reverted, Direct Acting*
 Made by *Wheeler & Co. Ltd. Glasgow*
 When *1876* At *Greenock*
 Diameter of cylinder *22" x 40"* Length of stroke *30"*
 No. of revolutions per minute *about 76*
 Point of cut off *Variable*
 Diameter of screw shaft *7 5/8"*
 Diameter of crank shaft journals *7 3/8"*
 Diameter of screw, ~~not padded~~ *10ft*
 Pitch of screw *14" x 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. Glasgow*
 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 *Yes*

Can the super-heater be shut off and the boilers worked separately *Yes*
 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 40 ft*
 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 4 ft.*

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 *None*
 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. Ltd. Manufacturer.

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

Kees paid £3.10/-

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