

SHIP'S NAME

"Renfrewshire"

25588.

Iron.

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 12/2/80

Description *Compound Inverted Direct Acting*

Are all the bilge suction pipes fitted with roses

Yes

Made by *James Blackwood & Gordon*No. of feed pumps *Two* and sizes *3 1/4" dia x 15" stroke*When *18 70* At *Port Glasgow*What gauges are there attached to the engines and boilers ... *One Steam One Vacuum & One Compound*Diameter of cylinder *25" x 44"* Length of stroke *30"*

No. of revolutions per minute

Description and size of Donkey Pumps ... *Double acting 3" x 6"*Point of cut off *1/2*Diameter of screw shaft *8 3/8"*Where do they pump from ... *From the Sea & Bilge*Diameter of crank shaft journals *8 1/2"*Diameter of screw, or of paddle wheel *not ascertained*No. of bilge injections *One* and sizesPitch of screw *1*Are they connected to air, or circulating pumps *to Circulating*No. of blades, *Four* Total surfaceIs there a hand pump in the engine room *Yes*No. of bilge pumps *Two* and sizes *3" x 15" stroke*Can it be worked by the main engines *no*Do they pump from each compartment *Yes*Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *One* Description *Round Horizontal*

Can the super-heater be shut off and the boilers worked separately

Made by *Blackwood & Gordon*Description and area of safety valves on each boiler *Two Direct loaded*When *18 70* At *Port Glasgow**23.75" area each*Working pressure *50 lbs*No. of square feet of fire-grate surface in each boiler *40 ft*Tested by hydraulic pressure to *75 lbs*, Date *22.1.80*Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *Yes*Description of super-heating apparatus *None, a dome is fitted*Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times *Yes*

Can each boiler be worked separately

DONKEY BOILER.

Description *Round vertical*Tested by hydraulic pressure to *45 lbs*, Date *23.1.80*Where fixed *On Main Deck*Description and area of safety valves *Direct loaded*Working pressure *30 lbs*No. of square feet of fire grate *4 ft 3.9 area*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Yes*What pipes are carried through the bunkers *None*Are they Kingston valves or common cocks ... *Screw down valves & Cocks*

How are they protected

Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *The blow off cocks and donkey suction are below plates & platform*When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *January*Are the discharge pipes above or below the deep water line *Above*Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Yes*Are they each fitted with a discharge valve on the plating of the vessel *Yes*Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *Yes*

Manufacturer.

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 *"Renfrewshire"* owned by *Schjmann*of the Port of *Glasgow* of *90* Tons Register, and *90* Registered Horse Power,and that they have been carefully inspected and examined by me at *Glasgow*and found to be at this date, viz., *January 26. 1880* in good order and safe working condition.

Amount of Fee for Survey ... £4 : 0 : 0

Travelling Expenses, if any, £

See Repair form appended

James Morrison

Clyde District

1210 - 0134