

# REPORT ON MACHINERY

No. 16712  
FRI. JUN. 26 1914.

Received at London Office

Date of writing Report 19 When handed in at Local Office 25/6/14. Port of Greenock  
No. in Survey held at Port Glasgow Date, First Survey 16<sup>th</sup> Decr/13 Last Survey 19<sup>th</sup> June 1914  
Reg. Book. (Number of Visits 34)

on the S. S. "SANTA ISABEL" Gross 2023 Tons Net 1211  
Master A. S. Graham Built at Port Glasgow By whom built Dunlop Bremer & Co Ltd When built 1914  
Engines made at Port Glasgow By whom made do when made 1914  
Boilers made at Glasgow By whom made Dunsmuir & Jackson Ltd when made 1914  
Registered Horse Power Owners Santa Isabel S. Co Ltd Port belonging to Liverpool  
Nom. Horse Power as per Section 28 236 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3  
Dia. of Cylinders 21-35-57 Length of Stroke 36 Revs. per minute Dia. of Screw shaft as per rule 11.5 Material of screw shaft Steel  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight in the propeller boss Yes If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive No If two liners are fitted, is the shaft lapped or protected between the liners No Length of stern bush 4-3  
Dia. of Tunnel shaft as per rule 10.28 Dia. of Crank shaft journals as per rule 10.8 Dia. of Crank pin 11 Size of Crank webs 7x17 Dia. of thrust shaft under collars 11 Dia. of screw 14-3 Pitch of Screw 14-3 No. of Blades 4 State whether moveable No Total surface 60 sq  
No. of Feed pumps 1 Diameter of ditto 3.5 Stroke 21 Can one be overhauled while the other is at work No  
No. of Bilge pumps 2 Diameter of ditto 3.5 Stroke 21 Can one be overhauled while the other is at work Yes  
No. of Donkey Engines 2 Sizes of Pumps 8x8x18, 5x5x12, 4x4x8 No. and size of Suctions connected to both Bilge and Donkey pumps 2x2 1/2 for hold, 2x2 1/2 for hold  
In Engine Room 2x2 1/2 for hold, 2x2 1/2 for hold, 1x2 1/2 tunnel well In Holds, &c. 1x2 1/2 for hold, 2x2 1/2 for hold  
No. of Bilge Injections 1 sizes 5.5 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3.5  
Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible No  
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line above  
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
What pipes are carried through the bunkers None How are they protected Yes  
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes  
Dates of examination of completion of fitting of Sea Connections 12/5/14 of Stern Tube 12/2/14 Screw shaft and Propeller 12/5/14  
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from below on quarter

**BOILERS, &c.**—(Letter for record ) Manufacturers of Steel Boilers made at Glasgow in separate report  
Total Heating Surface of Boilers Is Forced Draft fitted No No. and Description of Boilers 2 aft mtd  
Working Pressure 180 lbs Tested by hydraulic pressure to Date of test No. of Certificate  
Can each boiler be worked separately Yes Area of fire grate in each boiler No. and Description of Safety Valves to each boiler 2 spring loaded Area of each valve 5.94 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes  
Smallest distance between boilers or uptakes and bunkers or woodwork 3-0 Mean dia. of boilers Length Material of shell plates  
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams  
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps  
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell  
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter  
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings  
bottom Thickness of plates bottom  
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom  
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules  
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:  
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays  
Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom  
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules  
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays  
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and  
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each  
Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked  
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet  
holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed  
Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

