

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report 19 When handed in at Local Office 19 Port of Glasgow  
 No. in Survey held at Grangemouth Date, First Survey 2-12-48 Last Survey 19-9-1949  
 Reg. Book 3430 on the SS RHINELAND (EX SCHWAN) (Number of Visits)  
 Built at Kiel By whom built Hawaldtswerke A/G Yard No. - When built 1938  
 Engines made at Bremen By whom made Deutsche Schiff u. Mach Engine No. 2099 When made 1938  
 Boilers made at Kiel By whom made Hawaldtswerke A/G Boiler No. 1520/1 When made 1938  
 Registered Horse Power - Owners Burnie Line Ltd Port belonging to Leith  
 Nom. Horse Power as per Rule - Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which vessel is intended International

ENGINES, &c.—Description of Engines Compound & LP Turbine with D.P. gearing & Hydraulic coupling Revs. per minute 96  
 Dia. of Cylinders 17 1/16" x 35 7/16" Length of Stroke 35 7/16" No. of Cylinders 2 No. of Cranks 2  
 Crank shaft, dia. of journals as per Rule Crank pin dia. 11" Mid. length breadth 21 1/2" Thickness parallel to axis 6 7/8"  
as fitted 10 5/8" Crank webs shrunk Mid. length thickness 6 7/8" Thickness around eye-hole 5 1/4"  
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as fitted 12 1/2"  
as fitted 10 5/8"  
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as fitted 11 3/8" Is the tube shaft fitted with a continuous liner Yes  
as fitted - as fitted  
 Bronze Liners, thickness in way of bushes as per Rule 27/32" Thickness between bushes - Is the after end of the liner made watertight in the  
as fitted propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner -  
 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 -  
 If two liners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 at No If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 3'-10 1/2"  
 Propeller, dia. 12'6" Pitch 13'9 1/2" No. of Blades 4 Material Br. whether Moveable No Total Developed Surface 58 sq. feet  
 Feed Pumps worked from the Main Engines, No. None Diameter - Stroke - Can one be overhauled while the other is at work -  
 Bilge Pumps worked from the Main Engines, No. One Diameter 3 9/16" Stroke 18" Can one be overhauled while the other is at work -  
 Feed Pumps { No. and size 1-8x6x14, 1-8x6x10 & 1-8x6x12 Pumps connected to the { No. and size 1-8x6x10, 1-7 1/2x9x12, 1-3 9/16x18  
How driven Steam Main Bilge Line How driven Steam M.E.  
 Ballast Pumps, No. and size 1-7 1/2x9x12 Lubricating Oil Pumps, including Spare Pump, No. and size 1-6 3/8x6 3/8x14 & gear pump  
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected both to Main Bilge Pumps and Auxiliary  
 Bilge Pumps:—In Engine and Boiler Room 2-2 1/2 ER 2-2 1/2 BR 1-2 1/2 aft well  
 In Pump Room 2-2 1/2 dry tank, 1-2 1/2 ESD 1-2 1/2 coffee can In Holds, &c. 1-2 1/2 P & S in No. 1, 2, 3 hold  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-6" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,  
 No. and size 2-3 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with 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 Overboard Discharges 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 pass through the bunkers None How are they protected -  
 What pipes pass through the deep tanks - Have they been tested as per Rule -  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
 compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from ER to L

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 2906 sq ft + 1600 sq ft superheater  
 Which Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters Both  
 No. and Description of Boilers 2 - Marine Return tube S.E. Working Pressure 225 lb. sq. in.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? -

Can the donkey boiler be used for other than domestic purposes -

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers - Donkey Boilers -  
 (If not state date of approval)

Superheaters - General Pumping Arrangements - Oil fuel Burning Piping Arrangements -

## SPARE GEAR.

Has the spare gear required by the Rules been supplied YesState the principal additional spare gear supplied -

The foregoing is a correct description.

Manufacturer.

007647-007652-4156

Lloyd's Register  
Foundation



