

REPORT ON MACHINERY.

No. H4006
24 SEP 1924

Received at London Office

Date of writing Report 22nd Sept. 1924 When handed in at Local Office 22nd Sept. 1924 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 8. 8. 23 Last Survey 22. 9. 1924
Reg. Book. 90267 on the s.s. "PENTIRION" (Number of Visits 35)

Master _____ Built at Burntisland By whom built Burntisland S.S. Co. Ltd. (Nº130) When built 1924
Tons { Gross 2473.87
Net 1498.61

Engines made at Glasgow By whom made D. Rowan & Co. Ltd. (Nº787) when made 1924

Boilers made at Glasgow By whom made D. Rowan & Co. Ltd. (Nº787) when made 1924

Registered Horse Power _____ Owners The Pentwyn Steamship Co. Ltd. Port belonging to Cardiff

Nom. Horse Power as per Section 28 251 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 22" 36" 60" Length of Stroke 39" Revs. per minute 83 Dia. of Screw shaft as per rule 12.28" Material of Steel
as fitted 12.96" screw shaft

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 — 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 Yes - charged If two

liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 4-13"

Dia. of Tunnel shaft as per rule 10.87" Dia. of Crank shaft journals as per rule 11.41" Dia. of Crank pin 11 1/2" Size of Crank webs 17 1/2" x 7 1/2" Dia. of thrust shaft under

collars 11 3/4" Dia. of screw 15-3" Pitch of Screw 16-6" No. of Blades 4 State whether moveable No Total surface 73.6 sq

No. of Feed pumps 2 Diameter of ditto 3 1/4" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps BALLAST 8" x 10" x 8" GENERAL HARBOUR 7 1/4" x 5 1/2" x 12" 5" x 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room -3-2 1/2", 1-4" special 1-2 1/2" tunnel well Holds, &c. no 1 Hold 2-2 1/2", no 2 Hold 2-3"

No. of Bilge Injections one sizes 4 1/2" Connected to condenser or to circulating pump condenser Is a separate Donkey Suction fitted in Engine room & size 4"

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 —

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 — How are they protected —

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

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel The Steel Company of Scotland Ltd., The Lanarkshire Steel Co. Ltd.

Total Heating Surface of Boilers 3970 sq Is Forced Draft fitted No No. and Description of Boilers Two Single Ended

Working Pressure 180 lbs/sq Tested by hydraulic pressure to 320 lbs/sq Date of test 7.5.24 No. of Certificate 16491

Can each boiler be worked separately Yes Area of fire grate in each boiler 67.75 sq No. and Description of Safety Valves to

each boiler Two Spring loaded Area of each valve 7.06 sq Pressure to which they are adjusted 185 LBS Are they fitted with easing gear Yes

Smallest distance between boilers on uptakes and bunkers on woodwork -15" Int. dia. of boilers 14-9" Length 10-6" Material of shell plates Steel

Thickness 1 13/64" Range of tensile strength 28/32 tons/sq Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. LAP

long. seams T.R.D.B.S Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 27/32" Lap of plates or width of butt straps 18 3/4"

Per centages of strength of longitudinal joint rivets 89 Working pressure of shell by rules 180 lbs/sq Size of manhole in shell 19 1/2" x 15 1/2"

Size of compensating ring 34" x 30" x 1 13/64" Description of Furnaces in each boiler 3 Deighton Material Steel Outside diameter 3'-7 3/32"

Length of plain part top — bottom — Thickness of plates crown 35 bottom 64 Description of longitudinal joint weld No. of strengthening rings None

Working pressure of furnace by the rules 184 lbs/sq Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 21/32" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 10 3/8" x 9 1/2" Back 9 1/4" x 8 7/8" Top 10 3/8" x 9 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 182 lbs/sq

Material of stays Steel Thickness 1 1/4" Pitch of stays 19 3/4" x 20 1/2" How are stays secured D. Nuts Working pressure by rules 180 lbs/sq Material of stays Steel

Material Steel Thickness 1 1/4" Pitch of stays 19 3/4" x 20 1/2" How are stays secured D. Nuts Working pressure by rules 180 lbs/sq Material of Front plates at bottom Steel

Thickness 27/32" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 13 1/8" x 8 7/8" Working pressure of plate by rules 181 lbs/sq

Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 27/32" Back 23/32" Mean pitch of stays 10"

Pitch across wide water spaces 13 7/8" Working pressures by rules F 180 lbs/sq, B 184 lbs/sq Orders to Chamber tops: Material Steel Depth and

thickness of girder at centre 7 3/4" x 20 7/8" Length as per rule 2-8 5/8" Distance apart 9 1/2" Number and pitch of stays in each 2 @ 10 3/8"

Working pressure by rules 181 lbs/sq Steam dome: description of joint to shell None % of strength of joint —

Diameter — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —

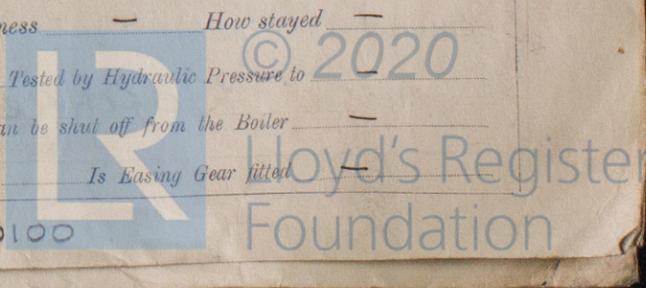
Pitch of rivets — Working pressure of shell by rules — Crown plates — Thickness — How stayed —

SUPERHEATER. Type None Date of Approval of Plan — Tested by Hydraulic Pressure to —

Date of Test — Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —

Diameter of Safety Valve — Pressure to which each is adjusted — Is Easing Gear fitted —

IF STOCKS, STATE MECHANICAL TRADES OF THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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