Rec 24/8/76

Port Greenock Aug 18th 1876

Details of Main Boilers of the Steam Ship Yacht "Dobhran" 180 tons

Diameter	9' " 6"	Length 7' " 6"

Thickness of shell plates $\frac{12''}{16}$

Description of riveting of longitudinal joints Double riveted of circumferential joints Single

Pitch of rivets	ditto 3¾"	ditto 2⅝"
Diameter of rivets	ditto 1/16"	ditto 1"
Lap of plating	ditto 5½"	ditto 3½"

Size of manholes in circular shell 13" x 17"

How compensated for By angle iron ring 3" x 3" x ⅞"

Number of furnaces in boiler Two

Diameter of furnaces 3' " 0"   Length of furnaces 5' " 2"

Thickness of furnace plates ⁷/16"

Description of joint of furnaces Double butt strapped

Whether strengthened with rings None   Greatest length between rings ———

Thickness of combustion chamber plating ⁷/16"

Diameter of screw stays to ditto 1⅜"   pitch of stays 9" x 8¼"

End plates, thickness $\frac{10''}{16}$

Diameter of longitudinal stays to end plates 1⅞"   pitch of ditto 14½" x 14½"

How stays are secured By double nuts

Diameter of tubes 2¾"   pitch of tubes 4"

Thickness of tube plates $\frac{10''}{16}$

Stayed by Tubes screwed & fitted with nuts   pitch of stays 12" x 8"

Description of steam receiver Round vertical with single flue

Diameter of ditto 6' " 2" Flue 3' " 4½"   height length of ditto 4' " 9"

Flue with collsprings rings on flue

Thickness of plating of ditto ⁷/16"   ends $\frac{10}{16}$

Ends, how stayed 2 angle irons round flue & shell

James Mollison

Engineer Surveyor to Lloyd's Register of Shipping.

P.T.O
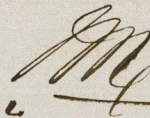
Formulae for Shell $\dfrac{31520 \times 1.5 \times 63\% \text{ Rivet}}{112.5 \times 6.5} = 65\ lbs$

Formula for flat plate $\dfrac{100 \times 49}{74.20} = 68\ lbs$

Formula for flue $\dfrac{89600 \times .19}{5.16' \times 36''} = 91\ lbs$

Longitudinal Stays $1\frac{7}{8}''$ dia., $14\frac{1}{2}'' \times 14\frac{1}{2}''$ pitch = $4951\ lbs$

JM