

# REPORT ON BOILERS.

No. 62750

Received at London Office **AUG 28 1940**

Date of writing Report **19** When handed in at Local Office **26. 8. 1940** Port of **Glasgow**

No. in Survey held at **Annan** Date, First Survey **1940 Jan 18** Last Survey **22-8-1940**

Reg. Book. on the **M/V. "CAPE HAWKE"** (Number of Visits **29**) } Gross **5081**  
Tons } Net **2933**

Built at **Port Glasgow** By whom built **Lithgow Ltd** Yard No. **930** When built **1940**

Boilers made at **Annan** By whom made **Buchanan & Co Annan Ltd** Boiler No. **14493** When made **1940**

Owners **Royal Shipping Company** Port belonging to **Glasgow**

**VERTICAL DONKEY BOILER**— No. **one** Description **Composite** Manufacturers of steel **Bohiller Ltd**

Made at **Annan** By whom made **Buchanan & Co Annan Ltd** When made **1940** Where fixed **Working pressure 120**

Tested by hydraulic pressure to **230** Date of test **22-8-40** No. of Certificate **20619** Fire grate area — Description of safety valves **Enclosed spring**

No. of safety valves **2** Area of each **7.06 sq ft** Pressure to which they are adjusted — If fitted with easing gear **yes** If steam from main boilers can enter the donkey boiler — Diameter of donkey boiler **8'-0"** Length **9'-3"** Material of shell plates **S** Thickness **2 1/32 13/16**

Range of tensile strength **28-32 tons** Description of riveting long. seams **VR Lap** Diameter of rivet holes **1 1/32** Whether punched or drilled **drilled** Pitch of rivets **3.14" 3.09" 3.29"** Lap of plating **5"** Per centage of strength of joint Rivets **63.6 54.6** Working pressure of shell by Plates **67.2 66.8**

Rules **121** Thickness of shell crown plates **1 1/32 19/32** Radius of do. **4'-0"** No. of stays to do. — Diameter of stays — Diameter of furnace—Top — Bottom **7'-0"** Length of furnace — Thickness of furnace side plates **2 3/32** Description of joints **seamless** Working pressure of furnace by rules **144** Thickness of Ogee ring **1 1/32** Working pressure of Ogee ring by rules **124** Thickness of furnace crown plates **2 3/32** Radius of do. **3'-6"** Stayed by **Hemisphere** Diameter of uptake **21 1/2" x 25"** Thickness of uptake plates **9/16** Thickness of tube plates front **1 1/2"** Mean pitch of stay tubes in nest **8.729" about gasnet** Pitch in outer vertical rows **5 1/4" 6 1/2"**

Diameter of tube holes FRONT stay **2 3/16 1 1/16** BACK stay **2" 1 1/2"** Working pressure of tube plates by rules **F 123.126 B 145.161** Tubes: Material **S**

External diameter stay **2" 1 1/2"** Thickness stay **1/32** No. of threads per inch **9** Pitch of tubes **2 1/16" x 2 5/8" 3.13" x 3.25"**

Working pressure by rules **215** Manhole compensation; Size of opening in shell plate **21" x 17"** Section of compensating ring **7 1/2" x 1 1/32"** No. of rivets and diameter of rivet holes **40 @ 1 1/32"** Outer row pitch at ends **4.04"**

The foregoing is a correct description,  
**Earl** Manufacturer

Dates of Survey while building

|                                      |  |                          |
|--------------------------------------|--|--------------------------|
| During progress of work in shops - - | 1940 Jan 18 Feb 2, 9, 20, 28 Mar 8, 14, 29 Apr 4                                       | Drawing No. <b>25051</b> |
|                                      | 11, 18, 25 May 2, 9, 16, 21, 30 June 7, 13, 19, 25 July 5, 9, 11, 25, 30 Aug 9, 15, 22 |                          |
|                                      | Total No. of visits <b>29</b>  |                          |

Is the approved plan of boiler forwarded herewith **yes**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)

The materials and workmanship are good.  
The boiler has been constructed under special survey.  
To the order of Messrs David Rowan & Co Ltd and intended to be fitted with their engine No. 1037.

Heating surface - Exhaust gas 760 sq ft. - oil fired 590 sq ft.

This boiler has been satisfactorily installed in the vessel and the safety valves have been adjusted to the working pressure.

**W. J. Brown**

Survey Fee ... .. £ 7 : - : } When applied for ..... 19 .....

Travelling Expenses (if any) £ : : } When received ..... 19 .....

**W. J. Davis**  
Engineer Surveyor to Lloyd's Register of Shipping.