

REPORT ON BOILERS.

No. 68373

Received at London Office

21 JAN 1945

Date of writing Report 19... When handed in at Local Office 24.4.1944 Port of **GLASGOW.**
 No. in Survey held at **ANNAN** Date, First Survey 28.1.44 Last Survey 18.4.1944
 Reg. Book. "VIC 81" (Number of Visits) Tons Gross Net
 on the **Knottingley** By whom built **John Harkens Ltd. Crabtree (1931) Ltd.** Yard No. 182 When built 1944
 Built at **Great Yarmouth** Boilers made at **ANNAN** By whom made **COCHRAN & CO. (ANNAN) LTD** Boiler No. 16034 When made 1944
 Owners **ADMIRALTY** Port belonging to **HULL**

VERTICAL DONKEY BOILER— No. **One** Description **Cochran** Manufacturers of steel **Colvilles Ltd.**
 Made at **Annan** By whom made **Cochran & Co. (Annan) Id.** When made **1944** Where fixed Working pressure **125 lbs**
 tested by hydraulic pressure to **238** Date of test **18.4.44.** No. of Certificate **21707** Fire grate area **26.75** Description of safety valves **Ordinary**
 No. of safety valves **2** Area of each **4.9"** Pressure to which they are adjusted **120 lb** If fitted with easing gear **Yes** If steam from main boilers can enter the donkey boiler **—** Diameter of donkey boiler **7'0"** Length **14'0"** Material of shell plates **S** Thickness **19/32"** **23/32"**
 Range of tensile strength **28-32** Description of riveting long. seams **DR Lap.** Diameter of rivet holes **31/32"** Whether punched or drilled **drilled** Pitch of rivets **2.962"** **3.03"** **2.97"** Lap of plating **4 1/2"** Per centage of strength of joint Rivets **68.9** Working pressure of shell by Plates **66.4**
 rules **129.7** Thickness of shell crown plates **1" x 17/32"** Radius of do. **3'6"** No. of stays to do. Diameter of stays Diameter of furnace—Top Bottom **6'0"** Length of furnace Thickness of furnace side plates **21/32"** Description of joint **Seamless** Working pressure of furnace by rules **152** Thickness of Ogee ring **1"** Working pressure of Ogee ring by rules **133** Thickness of furnace crown plates **21/32"** Radius of do. **3'0"** Stayed by **Hemisphere** Diameter of uptake **16" x 20"** Thickness of uptake plates **1/2"** Thickness of tube plates front **1 1/16"** Mean pitch of stay tubes in nest **10.77"** Pitch in outer vertical rows **8"**
 Diameter of tube holes FRONT stay **2 1/16"** BACK stay **2 1/8"** Working pressure of tube plates by rules **F.126B.146** Tubes: Material **S**
 External diameter stay **2 1/8"** Thickness **16** stay **11/32"** No. of threads per inch **9** Pitch of tubes **4" x 3 3/4"**
 Working pressure by rules **175** Manhole compensation; Size of opening in shell plate **21" x 17"** Section of compensating ring **7 1/2" x 1"** No. of rivets and diameter of rivet holes **40 @ 31/32"** Outer row pitch at ends **4 1/2"**

The foregoing is a correct description,
 CARX. Manufacturer
 FOR COCHRAN & CO. ANNAN, LTD.

H.S = 500 ft by specification

Dates of Survey while building: During progress of work in shops - 1944 Jan 28 Mar 8, 16, 30 Apr 14, 18
 During erection on board vessel -
 Total No. of visits 6
 Drawing No. 29465
 Is the approved plan of boiler forwarded herewith **No**
Retained for duplicate cases.

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.
 The boiler has been constructed to the order of the Admiralty and will be sent to Messrs. Crabtree (1931) Ltd., Great Yarmouth to be fitted in an 80ft. steam lighter.
 The above boiler fitted on board the steam lighter 'Vic 81' at Knottingley, examined under steam, safety valves adjusted to 125 lbs, accumulation test held and found satisfactory on completion of all tests.
 Size of safety valve washers F 1/32 A 10/32 set on 16/10/44.
 W.S. Shields
 Hull.

Survey Fee ... £ 4 : 4 : } When applied for ...
 Specification Travelling Expenses (if any) £ 1 : 1 : } When received ...

L.C. Davis
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned Transmit to Wokingham // FRI. 16 FEB 1945
 See F.E. machy. rpt.
 Glasgow 25 APR 1944
 Lloyd's Register Foundation

The Surveyors are requested not to write on or below the space for Committee's Minute.