

REPORT ON BOILERS.

No. 20118

10 OCT 1960

Date of writing Report 7-10-1960 When handed in at Local Office 7-10-1960 Port of WEST HARTLEPOOL
 Received at London Office
 No. in Survey held at WEST HARTLEPOOL Date, First Survey 7-9-60 Last Survey 14-9-60 19
 Reg. Book 1111 on the 'MONTROSE' (Number of Visits 4) Tons ^{Gross} 4993
 Net 3646
 Built at Sunderland By whom built Bartram & Sons Ltd. Yard No. 386 When built 1961-3
 Boilers made at West Hartlepool By whom made Wm Gray & Co. Ltd., Central Marine Engine Works. Boiler No. R.471. When made 1960
 Owners MONTSHIP LINES LTD. Port belonging to LONDON.

VERTICAL DONKEY BOILER— No. One Description Spanner Type Exhaust Gas. Manufacturers of steel Colvilles Ltd.
 Made at W.Hpl. By whom made Central Marine Engine Works. When made 1960 Where fixed - Working pressure 100 lbs.
 tested by hydraulic pressure to 200 lb. Date of test 14-9-60. No. of Certificate Hpl 4323 Total heating surface of boilers 2051 sq. ft. Area of firegrate in each boiler - No. and description of safety valves on each boiler 1-DOUBLE MACHINE TYPE Area of each set of valves per boiler 11.879 sq. in. Pressure to which they are adjusted 100 lb./sq. in. If fitted with easing gear - If steam from main boilers can enter the donkey boiler - Diameter of boiler 6'-0" outside.
 Length 11'-0" over Material of shell plates Colvilles Boiler Steel. Thickness 1/2" Range of tensile strength 28/32 t.p.i. Description of riveting long. seams Welded Diameter of rivet holes - Whether punched or drilled - Pitch of rivets - Lap of plating - Thickness of shell crown plates - Radius of do. - No. of stays to do. - Diameter of stays - Diameter of furnace—Top - Bottom - Length of furnace - Thickness of furnace side plates - Description of joint - Thickness of Ogee ring - Thickness of furnace crown plates - Radius of do. - Stayed by - Diameter of uptake - Thickness of uptake plates - Thickness of tube plates Top 7/8" Bottom 7/8" Mean pitch of stay tubes in nest As per approved plan.
 Pitch in outer vertical rows As per approved plan. Diameter of tube holes Top stay 2 1/8" Bot. stay 2 1/8" Tubes: Material Hot finished steel.
 External diameter stay 2 1/8" plain 2 1/8" Thickness stay 3/8" plain 10SWG. No. of threads per inch Welded Pitch of Tubes 3 5/8" triangular.
 Manhole compensation; Size of opening in shell plate 16" x 12" Section of compensating ring 2" x 4 1/2" x 1" No. of rivets and diameter of rivet holes Welded Outer row pitch at ends -

The foregoing is a correct description of **WILLIAM GRAY & COMPANY LIMITED**

Manufacturer. *[Signature]*

Dates of Survey while building { During progress of work in shops - 1960. September, 7, 11, 12, 14. Drawing No. 13542B Production Director
 { During erection on board vessel - - -
 Total No. of visits 4 Is the approved plan of boiler forwarded herewith Yes

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Spanner Patent Swirlyflo Exhaust Gas Boiler has been constructed under Special Survey, in accordance with the Rules, the Approved Plans and the Secretary's letters.

The material used has been tested according to the Rules and the workmanship is good.
The longitudinal weld has been welded in accordance with the requirements of Class I fusion vessels by the Central Marine Engine Works.
This boiler is eligible in my opinion to be fitted on board a ship classed by the Society.

This donkey boiler is for the North Eastern Marine Engineering Co. Ltd., Wallsend, Contract No. 3414.

SURVEY OF MACHINERY.

SUNDERLAND

This boiler has been securely fixed on board the M.V. "Montrose" in an efficient manner and examined under full working conditions. The safety valves were adjusted under steam to 100 lb/sq. in. and tested for accumulation with satisfactory results. For recommendations see Sunderland Machinery Report 4 to J. Wilson

Survey Fee ... £ 30 : - : - } When applied for 7-10-1960
 Travelling Expenses (if any) £ : : } When received 19-

[Signature]

Engineer Surveyor to Lloyd's Register of Shipping.

FRIDAY 23 JUN 1961

Committee's Minute

Assigned

