

# REPORT ON BOILERS.

No. 20109

Date of writing Report 4/1/54 To 18/3/1954 When handed in at Local Office 18/3/1954 Received at London Office 31 MAR 1954 Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 4<sup>th</sup> SEPT. 1953 Last Survey 2/3/1954  
 Reg. Book 359638 on the SINGLE SCREW MOTORSHIP "DAVANGER" (Number of Visits) 1  
 Built at PORT GLASGOW By whom built LITHGOWS LTD. EAST Yard No. 1079 When built 3/1954  
SHELL MADE AT LEVEN HENRY BALFOUR & CO. LTD. J808  
 Boilers FINISHED at GREENOCK By whom made JOHN G. KINCAID & CO. LTD. Boiler No. 457 FORK 243 When made 3/1954  
 Owners WESTFAL - LARSEN & CO. A/S. Port belonging to BERGEN.

SPANNER PATENT SWIRLYFLO EXHAUST GAS  
VERTICAL EXHAUST GAS BOILER No. ONE Description VERTICAL TUBES EXHAUST GAS Manufacturers of steel COLVILLES LTD.  
 Made at GREENOCK By whom made JOHN G. KINCAID & CO. LTD. When made 1954 Where fixed GREENOCK Working pressure 180  $\frac{lbs}{sq. in.}$   
 tested by hydraulic pressure to 320  $\frac{lbs}{sq. in.}$  Date of test 23/10/53 No. of Certificate 2727 Fire grate area ✓ Description of safety valves ORDINARY 2  $\frac{1}{2}$ " DIA. DOUBLE SPRING.  
 No. of safety valves 1 DBL Area of each 9.82  $\frac{sq. ft.}{in.}$  Pressure to which they are adjusted 180  $\frac{lbs}{sq. in.}$  If fitted with easing gear YES If steam from DOCK boilers can enter the EXHAUST GAS boiler YES Diameter of donkey boiler 6'-9" Length 10'-0" Material of shell plates STEEL Thickness 5/8"  
 Range of tensile strength 28/32  $\frac{tons}{sq. in.}$  Description of CLASS I WELDED long. seams ✓ Diameter of rivet holes ✓ Whether punched or drilled ✓ Pitch of rivets ✓ Lap of plating ✓ Per centage of strength of joint ✓ Working pressure of shell by rules 196.1  $\frac{lbs}{sq. in.}$  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 ✓ Working pressure of furnace by rules ✓ Thickness of Ogee ring ✓ Working pressure of Ogee ring by rules ✓ Thickness of furnace crown plates ✓ Radius of do. ✓ Stayed by ✓ Diameter of uptake ✓ Thickness of uptake plates ✓ Thickness of tube plates Top 1" Bottom 1" ✓ Mean pitch of stay tubes in nest 11  $\frac{1}{2}$ " as affd ✓ Pitch in outer vertical rows ✓  
 Diameter of tube holes TOP 2  $\frac{3}{4}$ " STAY 2  $\frac{3}{4}$ " BOTTOM 2  $\frac{3}{4}$ " ✓ Working pressure of tube plates by rules ✓ Tubes: Material STEEL 20/28  $\frac{tons}{sq. in.}$   
 External diameter stay 2" plain 2" ✓ Thickness stay 3/8" plain 9 S.W.G. ✓ No. of threads per inch STAY TUBES WELDED TO TUBE PLATES ✓ Pitch of Tubes 2  $\frac{7}{8}$ " TRIANGULAR PITCH. ✓  
 Working pressure by rules ✓ Manhole compensation; Size of opening in shell plate 3 @ 18" x 14" ✓ Section of compensating ring 2 x 4  $\frac{3}{8}$ " x 1" AT EACH MANHOLE. ✓ No. of rivets and diameter of rivet holes ✓ Outer row pitch at ends ✓  
 For JOHN G. KINCAID & COY. LIMITED.  
 The foregoing is a correct description,  
Chief Draughtsman.

BOILER HEATING SURFACE 2340 SQ. FT.

Dates of Survey while building  
 During progress of work in shops (1953) SEPT. 4. 16. 30. OCT. 21. 23. 30.  
 During erection on board vessel (1954) JAN. 7, 21, FEB. 17, 19, MAR. 2.  
 Total No. of visits 11.

Drawing No. SPANNER 4605A.

Is the approved plan of boiler forwarded herewith YES.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) THE BOILER SHELL WAS FABRICATED BY AN APPROVED MANUFACTURER IN ACCORDANCE WITH THE SOCIETY'S REQUIREMENTS FOR WELDED PRESSURE VESSELS - CLASS I, AND THEREAFTER CONSTRUCTED UNDER SPECIAL SURVEY IN ACCORDANCE WITH THE RULES AND APPROVED PLAN. THE MATERIALS AND WORKMANSHIP ARE GOOD. ON COMPLETION OF THE WELDING, THE BOILER WAS STRESS RELIEVED. IT HAS BEEN EFFICIENTLY INSTALLED ON BOARD THE VESSEL AND THE SAFETY VALVES WERE ADJUSTED UNDER STEAM TO 180  $\frac{lbs}{sq. in.}$ .

COMPRESSION RINGS:- PORT VALVE 1  $\frac{5}{32}$ ", STARBOARD VALVE 3/8".

[To SPANNER BOILERS LTD.  
 Survey Fee ... £ 21-0-0 When applied for 18<sup>th</sup> MAR. 1954.  
 Travelling Expenses (if any) £ : : When received 19

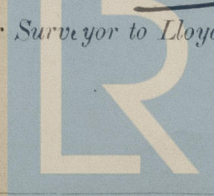
Committee's Minute

GLASGOW 30 MAR 1954

Assigned

SEE ACCOMPANYING MACHINERY REPORT

H. K. Taylor  
 Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation

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