

REPORT ON BOILERS.

No. 21204

Received at London Office

6 OCT 1943

Date of writing Report 10 When handed in at Local Office 4-10-1943 Port of Aberdeen

No. in Survey held at Aberdeen Date, First Survey 28: 8: 43 Last Survey 2: 10: 1943

Reg. Book. 5 (Number of Visits 5) Gross 232.28 Tons Net nil

on the SS The Jug "EMPIRE HARLEQUIN"

Built at Aberdeen By whom built Messrs. A. Hall & Co. Ltd. Yard No. 193 When built 1943

Engines made at Aberdeen By whom made A. Hall & Co. Ltd. Engine No. 399 When made "

Boilers made at Dumbarton By whom made Wm Denny & Sons Ltd. Boiler No. 4099 When made "

Nominal Horse Power _____ Owners The Admiralty Port belonging to _____

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel _____ (Letter for Record 5 ✓)

Total Heating Surface of Boilers _____ Is forced draught fitted No ✓ Coal or Oil fired Oil ✓

No. and Description of Boilers One Single ended Working Pressure 700 lbs ✓

Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Can each boiler be worked separately _____

Area of Firegrate in each Boiler _____ No. and Description of safety valves to each boiler 2 Improved High Lift ✓

Area of each set of valves per boiler per Rule Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler _____

Smallest distance between boilers or uptakes and bunkers or woodwork 8' 3" Is oil fuel carried in the double bottom under boilers No ✓

Smallest distance between shell of boiler and tank top plating Open floor Is the bottom of the boiler insulated No ✓

Largest internal dia. of boilers _____ Length _____ Shell plates: Material _____ Tensile strength _____

Thickness _____ Are the shell plates welded or flanged _____ Description of riveting: circ. seams end inter. _____

long. seams _____ Diameter of rivet holes in circ. seams _____ Pitch of rivets _____

Percentage of strength of circ. end seams plate _____ Percentage of strength of circ. intermediate seam plate _____

Percentage of strength of longitudinal joint plate _____

Thickness of butt straps outer _____ No. and Description of Furnaces in each Boiler _____

Material _____ Tensile strength _____ Smallest outside diameter _____

Length of plain part top _____ Thickness of plates crowns _____ Description of longitudinal joint _____

Dimensions of stiffening rings on furnace or c.c. bottom _____

End plates in steam space: Material _____ Tensile strength 64 H Thickness _____ Pitch of stays _____

How are stays secured _____

Tube plates: Material front _____ Tensile strength 64 H Thickness _____

Mean pitch of stay tubes in nests _____ Pitch across wide water spaces _____

Girders to combustion chamber tops: Material _____ Tensile strength _____ Depth and thickness of girder _____

at centre _____ Length as per Rule _____ Distance apart _____ No. and pitch of stays _____

in each _____

Combustion chamber plates: Material _____

Tensile strength _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____

Pitch of stays to ditto: Sides _____ Back _____ Top _____ Are stays fitted with nuts or riveted over _____

Front plate at bottom: Material _____ Tensile strength _____

Thickness _____ Lower back plate: Material _____ Tensile strength _____ Thickness _____

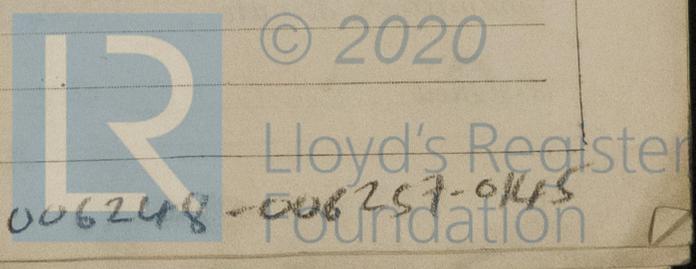
Pitch of stays at wide water space _____ Are stays fitted with nuts or riveted over _____

Main stays: Material _____ Tensile strength _____

Diameter At body of stay _____ No. of threads per inch _____

Screw stays: Material _____ Tensile strength _____

Diameter At turned off part _____ No. of threads per inch _____



Are the stays drilled at the outer ends. *Margin stays: Diameter { At turned off part, or Over threads*

No. of threads per inch *64 H*

Tubes: Material *See Glasgow Report* External diameter *Plain* Thickness *Stay* No. of threads per inch

Pitch of tubes *Manhole compensation: Size of opening in*

shell plate *See* Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged *Steam Dome: Material None*

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint *Plate Rivets*

Internal diameter Thickness of crown No. and diameter of stays

How connected to shell Inner radius of crown

of rivets in outer row in dome connection to shell Size of doubling plate under dome Diameter of rivet holes and pitch

Type of Superheater *None* Manufacturers of *Tubes Steel forgings Steel castings*

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear

Pressure to which the safety valves are adjusted Hydraulic test pressure

tubes forgings and castings and after assembly in place Are drain cocks on valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

The foregoing is a correct description,

 Manufacturer

Dates of Survey *1943* During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith
 while building During erection on board vessel - - - *Aug 28 Sept 20 21 30 Oct 2* Total No. of visits *5*

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey. (See G.R. Rpt No 64440) in accordance with the Rules. approved plan & specification. The materials & workmanship are good. The boiler has been securely fitted on board the vessel. The safety valves adjusted under steam as stated, tried for accumulation and found satisfactory.*

Charged on Mch report

Survey Fee £	:	:	When applied for,	19
Travelling Expenses (if any) £	:	:	When received,	19

J. H. Avery
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 12 NOV 1943*

Assigned *see minute on G.R. Rpt.*

