

REPORT ON BOILERS.

No. 21204

Received at London Office

- 6 OCT 1943

Date of writing Report 19 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. on the 5th Lt Jng "EMPIRE HARLEQUIN" (Number of Visits 5) Gross 232.28 Tons Net nil

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 W. 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 ✓ Working Pressure 200 lbs ✓

No. and Description of Boilers One Single ended

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 as fitted 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 6' 6" 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 long. seams Pitch of rivets {

Percentage of strength of circ. end seams {plate rivets Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate rivets combined

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

Material Tensile strength Smallest outside diameter

Length of plain part {top bottom Thickness of plates {crown bottom Description of longitudinal joint

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

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

How are stays secured

Tube plates: Material {front back Tensile strength 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

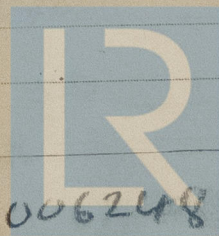
Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Main stays: Material Tensile strength

Diameter {At body of stay or Over threads No. of threads per inch

Screw stays: Material Tensile strength

Diameter {At turned off part or Over threads No. of threads per inch



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Are the stays drilled at the outer ends.

No. of threads per inch

Tubes: Material

External diameter

Plain
Stay

Thickness

No. of threads per inch

Pitch of tubes

Manhole compensation: Size of opening

shell plate

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 Engine

stays

Inner radius of crown

How connected to shell

Size of doubling plate under dome

Diameter of rivet holes and pitch

of rivets in outer row in dome connection to shell

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
while
building

During progress of
work in shops - -
During erection on
board vessel - - -

1943
Aug. 28 Sept. 20. 21. 30. Oct. 2

Are the approved plans of boiler and superheater forwarded herewith

(If not state date of approval.)

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 Gb 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

Survey Fee

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute

FRI. 12 NOV 1943

Assigned

see minute
on Gb. Rpt.

Engineer Surveyor to Lloyd's Register of Shipping.



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