

5b.

REPORT ON BOILERS.

No. 11895

Received at London Office 25 FEB 1937

of writing Report

19

When handed in at Local Office

14. 2.

19

Port of Belfast

See 7. 2. Machinery report

Size of opp. in Book

Survey held at

Belfast

Date, First Survey

Last Survey

19

on the

SINGLE SCREW "ERNEBANK" GIL ENGINE

(Number of Visits

Gross

Tons

Net

at Belfast By whom built Harland & Wolff Ltd Yard No. 984 When built 1937

ines made at Belfast By whom made Harland & Wolff Ltd Engine No. 984 When made 1937

ers made at Belfast By whom made Harland & Wolff Ltd Boiler No. 984 When made 1937

rivet holes and Anderson & Co Port belonging to Belfast

VERTICAL DONKEY BOILER.

at Belfast By whom made Harland & Wolff Ltd Boiler No. 984 When made 1937 Where fixed E.R. Stand

Manufacturers of Steel Colvilles Ltd

al Heating Surface of Boiler 1470 4470 Is forced draught fitted Coal or Oil fired Oil & Gas

and Description of Boilers One Clarkson Thimble Tube Working pressure 120 lbs

ted by hydraulic pressure to 230 Date of test 19-11-36 No. of Certificate 1025

a of Firegrate in each Boiler No. and Description of safety valves to each boiler One 3" double spring

ea of each set of valves per boiler per rule 99 as fitted 147 Pressure to which they are adjusted 120 lbs Are they fitted with easing gear Yes

te whether steam from main boilers can enter the donkey boiler Smallest distance between boiler or uptake and bunkers

Manufacture Woodwork Is oil fuel carried in the double bottom under boiler Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated Largest internal dia. of boiler 7'-1" Height 16'-3"

ell plates: Material S Tensile strength 25/32 Thickness 7/8"

e the shell plates welded on flange at butt & lap joints Description of riveting: circ. seams end DR inter. long. seams DR DBS

a. of rivet holes in circ. seams 1 1/2 Pitch of rivets 3.55" Percentage of strength of circ. seams plate 64.9 rivets 64.9 of Longitudinal joint plate 74.5 rivets 79 combined 88.6

orking pressure of shell by rules by rules 154 lbs by Thimbles 141 lbs Thickness of butt straps outer 7/16" inner 7/16"

ell Crown: Whether complete hemispherical, dished partial spherical, or flat Yes Material S

nsile strength 25/32 Thickness 7/8" Radius 6'-0" Working pressure by rules 146 lbs

escription of Furnace: Plain, spherical, or dished crown Material Tensile strength

ickness External diameter top bottom Length as per rule Working pressure by rules

tech of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

iameter of stays over thread Radius of spherical or dished furnace crown Working pressure by rule

ickness of Ogee Ring 1 1/32 Diameter as per rule D 6'-11 3/4" Working pressure by rule 122

ombustion Chamber: Material S Tensile strength 25/30 Thickness of top plate 1 1/16"

adius if dished 3'-6" Working pressure by rule 160 Thickness of back plate 1 1/4" Diameter if circular 4'-3"

ength as per rule 5'-10 7/8" Pitch of stays Are stays fitted with nuts or riveted over

iameter of stays over thread Working pressure of back plate by rules 235 lbs

ube Plates: Material front back Tensile strength Thickness Mean pitch of stay tubes in nests

comprising shell, Dia. as per rule front back Pitch in outer vertical rows Dia. of tube holes FRONT stay plain BACK stay plain

each alternate tube in outer vertical rows a stay tube Working pressure by rules front back

rders to combustion chamber tops: Material Tensile strength

epth and thickness of girder at centre Length as per rule

istance apart No. and pitch of stays in each Working pressure by rule

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Foundation

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Crown stays: Material _____ Tensile strength _____ Diameter { at body of stay, _____ or over threads _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter { at turned off part, _____ or over threads _____ No. of threads per inch _____

Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Thimbles Tubes: Material Steel External diameter { Shell 3 1/4" C.C. 4" Thickness { 9 B.W.G. 9 B.W.G.

No. of threads per inch ✓ Pitch of tubes SHELL HP. 7 1/8" C.C. HP. 7.46 Working pressure by rules ✓

Manhole Compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 28 1/4 x 24 1/4 x 1 1/4 No. of rivets and diameter _____

of rivet holes 40 - 1 1/8" Outer row rivet pitch at ends 3.53" Depth of flange if manhole flanged 16 x 12 3/8"

Uptake: External diameter 2' - 37/16" Thickness of uptake plate 5/8"

Cross Tubes: No. _____ External diameters { _____ Thickness of plates _____

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

The foregoing is a correct description,
FOR HARLAND AND WOLFE LIMITED.
D. G. Marshall Manufacturer.
Assistant Secretary.

Dates of Survey { During progress of work in shops - - } Is the approved plan of boiler forwarded herewith yes
while building { During erection on board vessel - - } (If not state date of approval.)

Total No. of visits _____

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler was constructed under special survey and in accordance with the approved plan. The materials & workmanship are good. It has been tested by hydraulic pressure, efficiently installed in the engine room, the safety valves adjusted under steam, accumulation tests were satisfactory. The boiler is adapted for oil fuel burning and exhaust gases. In our opinion it is eligible for use on a classed vessel.

Survey Fee ... £. _____ : When applied for, _____ 19 _____

Travelling Expenses (if any) _____ : When received, _____ 19 _____

See Main survey report.

Charles J. Hunter & Lee Ames.
Engineer Surveyor to Lloyd's Register of Shipping.