

# REPORT ON BOILERS.

No. 52058.

Received at London Office

30 JUN 1943

Report 19 When handed in at Local Office 29 JUN 1943 19 Port of HULL

Survey held at HULL. Date, First Survey 5. 11. 42. Last Survey Jun. 15. 1943

On the H.M. MINELAYER. BLACKBIRD. (Number of Visits 33.) Gross 442 Net 149

By whom built Corb Welva & Gemmell Ltd Yard No. 709 When built 1943

By whom made Char. D. Holmes Engine No. 1349 When made

By whom made Char. D. Holmes Boiler No. 1645 When made

Port belonging to

orse Power 156. Owners THE ADMIRALTY.

TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

urers of Steel Appleby Frodingham Steel Co Ltd and Chiller Ltd (Letter for Record 5)

ating Surface of Boilers 2650  $\phi$ . Is forced draught fitted Yes. Coal or Oil fired Coal

Description of Boilers One - S.B. Working Pressure 200  $\phi$ /in

hydraulic pressure to 350  $\phi$ /in Date of test 25.2.43. No. of Certificate 4180. Can each boiler be worked separately

Firegrate in each Boiler 63  $\phi$ . No. and Description of safety valves to each boiler 2. Spring loaded

each set of valves per boiler (per Rule 15.4  $\phi$  Pressure to which they are adjusted 200  $\phi$ /in Are they fitted with easing gear Yes.

11.2 of donkey boilers, state whether steam from main boilers can enter the donkey boiler

DER SE distance between boilers or uptakes and bunkers or woodwork 2' 0". Is oil fuel carried in the double bottom under boilers No.

distance between shell of boiler and tank top plating None. Is the bottom of the boiler insulated No.

internal dia. of boilers 14' - 9  $\frac{3}{8}$ ". Length 11' - 6". Shell plates: Material Steel. Tensile strength 29/33  $\phi$ /in

ss 17/16". Are the shell plates welded or flanged No. Description of riveting: circ. seams (end D.R. lap. inter. None

ams T.R. D.B.S. Diameter of rivet holes in (circ. seams 1  $\frac{3}{8}$ " Pitch of rivets (plate 4" rivets 9  $\frac{1}{2}$ "

D ON E tage of strength of circ. end seams (plate 65.6 % Percentage of strength of circ. intermediate seam (plate rivets 44.7 % rivets

OTATIO tage of strength of longitudinal joint (plate 85.5 % rivets 88.5 % rivets 88.8 %

IED OU ess of butt straps (outer 1  $\frac{1}{8}$ ". No. and Description of Furnaces in each Boiler 3. Cf. Diagram Section

ial Steel. Tensile strength 26 - 30  $\phi$ /in Smallest outside diameter 3' 6  $\frac{7}{16}$ "

h of plain part (top Thickness of plates (crown 3  $\frac{19}{32}$ " Description of longitudinal joint Weld

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

plates in steam space: Material Steel. Tensile strength 26/30  $\phi$ /in Thickness 1  $\frac{1}{32}$ ". Pitch of stays 21" x 20"

are stays secured Nut inside seat.

plates: Material (front Steel Tensile strength 26 - 30  $\phi$ /in Thickness 7/8" (back Steel Tensile strength 26 - 30  $\phi$ /in Thickness 25/32"

pitch of stay tubes in nests 9  $\frac{1}{16}$ ". Pitch across wide water spaces 13  $\frac{5}{8}$ "

ers to combustion chamber tops: Material Steel Tensile strength 28/32  $\phi$ /in Depth and thickness of girder

entre 8  $\frac{1}{2}$ " x 1  $\frac{7}{8}$ ". Length as per Rule 2' - 7  $\frac{15}{32}$ ". Distance apart 10  $\frac{3}{4}$ ". No. and pitch of stays

ch 2 @ 9  $\frac{3}{8}$ ". Combustion chamber plates: Material Steel Tensile strength 25/32" Back 3/4" Top 25/32" Bottom 25/32"

ile strength 26 - 30  $\phi$ /in Thickness: Sides 10  $\frac{3}{4}$ " x 9  $\frac{3}{8}$ ". Back 9  $\frac{1}{4}$ " x 9  $\frac{3}{8}$ ". Top 10  $\frac{3}{4}$ " x 9  $\frac{3}{8}$ ". Are stays fitted with nuts or riveted over Nuts.

h of stays to ditto: Sides 10  $\frac{3}{4}$ " x 9  $\frac{3}{8}$ ". Back 9  $\frac{1}{4}$ " x 9  $\frac{3}{8}$ ". Top 10  $\frac{3}{4}$ " x 9  $\frac{3}{8}$ ".

ont plate at bottom: Material Steel Tensile strength 26 - 30  $\phi$ /in Thickness 7/8"

ickness 7/8". Lower back plate: Material Steel Tensile strength 26 - 30  $\phi$ /in Thickness 7/8"

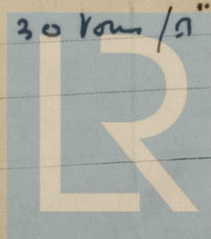
ch of stays at wide water space 14  $\frac{1}{2}$ " x 9  $\frac{3}{8}$ ". Are stays fitted with nuts or riveted over Nuts.

Shipping. in stays: Material Steel Tensile strength 28 - 32  $\phi$ /in

iameter (At body of stay, 3  $\frac{1}{8}$ " No. of threads per inch 6 (Over threads

ew stays: Material Steel Tensile strength 26 - 30  $\phi$ /in

iameter (At turned off part, 1  $\frac{3}{8}$ " No. of threads per inch 9 (Over threads



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Are the stays drilled at the outer ends NoNo. of threads per inch 9Margin stays: Diameter { At turned off part, 2"  
or  
Over threads 2"Tubes: Material FreeExternal diameter { Plain 2 3/4"  
Stay 2 3/4"Thickness { 8.69  
7/16" No. of threads per inch CPitch of tubes 3 7/8" x 3 7/8"shell plate 12" (x 16")Section of compensating ring 1 7/16" x 20Manhole compensation: Size 15 @ 1Outer row rivet pitch at ends 10 1/8"Depth of flange if manhole flanged 3 1/4"No. of rivets and diameter of rivet holes 15 @ 1

Tensile strength

Thickness of shell

Description of longitudinal joint

Steam Dome: Material NONEDiameter of rivet holes 10 1/8"

Pitch of rivets

Percentage of strength of joint { Plate  
Rivets

Internal diameter

Thickness of crown

Inner radius of crown

stays

How connected to shell

Size of doubling plate under dome

Diameter of rivet hole at

of rivets in outer row in dome connection to shell

Type of Superheater NONEManufacturers of { Tubes  
Steel forgings  
Steel castings

Number of elements

Material of tubes

Internal diameter and thickness of tubes

Material of headers

Tensile strength

Thickness

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

tubes

forgings and castings

and after assembly in place

Hydraulic test

valves fitted to free the superheater from water where necessary

Are drain

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with YesThe foregoing is a correct description,  
FOR CHARLES D. HOLMES & CO., LTD.W.R. Evans

Many

Dates of Survey	During progress of work in shops	1942.	1943.
while building	During erection on board vessel	Nov. 5.	Jan. 14, 28.
		Mar. 10, 11.	Feb. 6, 12, 19, 25, 27.

as on machinery report.

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 17/Total No. of visits 33Is this Boiler a duplicate of a previous case YesIf so, state Vessel's name and Report No. H.M. Trawica Biret. Hul. R. 15067

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

This boiler has been constructed under Special Survey in accordance with the approved Admiralty plans and the Rules.

The Workmanship and Materials are good and, when subjected to an hydraulic test of 350 lb / sq in it was found satisfactory in every respect.

Boiler installed under Special Survey, safety valves adjusted and accumulation test held and boiler examined after all trials and found satisfactory in every respect.

Survey Fee ... £

Travelling Expenses (if any) £

When applied for, 19When received, 19

Committee's Minute

Assigned See fe. mach. rpt.

Engineer Surveyor to Lloyd's Register of Shipping



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