

REPORT ON BOILERS.

No. 10,739.

Received at London Office

16 DEC 1931

of writing Report 19 When handed in at Local Office *10th Dec 1931* Port of *Belfast.*

o. in Survey held at *Belfast.* Date, First Survey *Visits included in 4.6. moly. rept.* Last Survey 19

57 on the *Swim. Sc. vessel "CORBIS"* (Number of Visits) Gross *8137.* Tons Net

ter Built at *Belfast.* By whom built *Workman, Clark (1928) Ltd.* Yard No. *519.* When built *1931.*

ines made at *Walsend.* By whom made *North Eastern Man Eng Co Ltd.* Engine No. *ms/4.* When made *1931.*

ers made at *Belfast.* By whom made *Workman, Clark (1928) Ltd.* Boiler No. *519.* When made *1931.*

inal Horse Power *714.* Owners *Anglo Saxon Petroleum Co.* Port belonging to *London.*

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *The British (Guest, Keen, Baldwins) Iron & Steel Co Ltd.* (Letter for Record *S.*)

l Heating Surface of Boilers *1247 sq ft each Boiler* Is forced draught fitted *yes.* Coal or Oil fired *oil & waste gas.*

and Description of Boilers *2 - S.E. MOLTR.* Working Pressure *150 lbs/sq in.*

ed by hydraulic pressure to *275 lbs/sq in.* Date of test *3/2/31.* No. of Certificate *956.* Can each boiler be worked separately *yes.*

a of Firegrate in each Boiler *✓* No. and Description of safety valves to each boiler *Two pair, Goodburns Improved High lift.*

u of each set of valves per boiler *per Rule 5.670" as fitted 6.2820"* Pressure to which they are adjusted *150 lbs/sq in.* Are they fitted with easing gear *yes.*

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler *No main boilers.*

llest distance between boilers or uptakes and bunkers or woodwork *18"* Is oil fuel carried in the double bottom under boilers *Boiler in Tween decks.*

llest distance between shell of boiler and tank top plating *✓* Is the bottom of the boiler insulated *yes.*

gest internal dia. of boilers *11'-9"* Length *10'-6"* Shell plates: Material *Steel.* Tensile strength *28/32 tons.*

ickness *3/32" - 27/32"* Are the shell plates welded or flanged *No.* Description of riveting: circ. seams *end Double.* inter. *✓*

seams *Double riveted, double BS.* Diameter of rivet holes in *circ. seams 13/32" long. seams 33/32"* Pitch of rivets *2.785" 5.5/16"*

centage of strength of circ. end seams *plate 63% rivets 59%* Percentage of strength of circ. intermediate seam *plate 85.8% rivets 86.0% combined 88.8%* Working pressure of shell by Rules *155 lbs/sq in.*

ickness of butt straps *outer 2 1/2" inner 2 1/4"* No. and Description of Furnaces in each Boiler *2 - Deighton.*

erial *Steel.* Tensile strength *26/30 tons.* Smallest outside diameter *4 1/16"*

th of plain part *top 1 1/2" bottom 1 1/4"* Thickness of plates *crowns 1 1/2" bottoms 3/32"* Description of longitudinal joint *welded.*

ensions of stiffening rings on furnace or c.c. bottom *✓* Working pressure of furnace by Rules *160.2 lbs/sq in.*

l plates in steam space: Material *Steel.* Tensile strength *26/30.* Thickness *1."* Pitch of stays *17x16*

are stays secured *Double nuts.* Working pressure by Rules *169.5 lbs/sq in.*

e plates: Material *Steel.* Tensile strength *26/30 tons.* Thickness *3/4"*

n pitch of stay tubes in nests *11 1/4" x 7 1/4"* Pitch across wide water spaces *13 1/2"* Working pressure *front 213 lbs/sq in. back 235 lbs/sq in.*

lers to combustion chamber tops: Material *Steel.* Tensile strength *28/32 tons.* Depth and thickness of girder

entre *7 1/2" x 1 1/2"* Length as per Rule *2'-9"* Distance apart *8 1/2"* No. and pitch of stays

ach *3. 9"* Working pressure by Rules *166.4 lbs/sq in.* Combustion chamber plates: Material *Steel.*

ile strength *26/30 tons.* Thickness: Sides *19/32"* Back *3/4"* Top *19/32"* Bottom *11/16"*

h of stays to ditto: Sides *9 x 7 3/4"* Back *8 1/2" x 9"* Top *8 1/2" x 9"* Are stays fitted with nuts or riveted over *SIDE STAYS & MARGINAL BACK STAYS FITTED WITH NUTS. CENTRE BACK STAYS RIVETED OVER.*

king pressure by Rules *172.5 lbs/sq in.* Front plate at bottom: Material *Steel.* Tensile strength *26/30 tons.*

ickness *1"* Lower back plate: Material *Steel.* Tensile strength *26/30 tons.* Thickness *13/16"*

h of stays at wide water space *13 1/2"* Are stays fitted with nuts or riveted over *MARGINAL STAYS FITTED WITH NUTS. OTHER STAYS RIVETED OVER.*

king Pressure *211 lbs/sq in.* Main stays: Material *Steel.* Tensile strength *28/32 tons.*

eter *At body of stay, 2 1/2" or Over threads.* No. of threads per inch *6* Area supported by each stay *272 sq in.*

king pressure by Rules *163 lbs/sq in.* Screw stays: Material *Steel.* Tensile strength *26/30.*

eter *At turned off part, 1 1/2" or Over threads. 1 3/4"* No. of threads per inch *9* Area supported by each stay *76 1/2 sq in.*

Working pressure by Rules 164 lbs. Are the stays drilled at the outer ends Yes. Margin stays: Diameter ^{At turned off part,} 1 1/4" or Over threads 1 1/4"
 No. of threads per inch 9 Area supported by each stay 91.40" Working pressure by Rules 166.5 lbs.
 Tubes: Material dup welded W.I. External diameter ^{Plain} 2 1/2" Thickness ^{8WG} 5/16 & 3/8" No. of threads per inch 9
 Pitch of tubes 3 3/4 x 3 5/8" Working pressure by Rules 300 lbs. Manhole compensation: Size of opening in shell plate 15" x 19" Section of compensating ring 32 5/8" x 32 1/2" x 27" No. of rivets and diameter of rivet holes 42 RIVETS 1/32" O.R.
 Outer row rivet pitch at ends 7 1/4" Depth of flange if manhole flanged 3 1/4" Steam Dome: Material

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 Working pressure by Rules Thickness of crown No. and diameter of stays
 Inner radius of crown Working pressure by Rules
 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 Manufacturers of ^{Tubes} 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 raising gear Working pressure as per Rules
 Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes castings and after assembly in place Are drain cocks or 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,
pro WORKMAN CLARK (1928) LIMITED, Manufacturer.
J. B. Cunningham Secretary.

Dates of Survey ^{During progress of work in shops - -} while building ^{During erection on board vessel - - -}
 Are the approved plans of boiler and superheater forwarded herewith (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.) These boilers have been constructed under special survey. The materials and workmanship are sound and good. They have been efficiently fixed in the vessel and the safety valves adjusted under steam to 150 lbs.

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

John K. Williams.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 22 DEC 1931

Assigned See J.R. Rpt.

