

REPORT ON BOILERS.

No. 16914

Received at London Office

OCT 29 1940

Date of writing Report 28/8/1940 When handed in at Local Office 29/8/1940 Port of MIDDLESBROUGH

No. in Survey held at Stockton-on-Tees Date, First Survey 21/3/40 Last Survey 26/8/1940

Reg. Book on the "L.C. 11" SALVAGE LIGHTER (Number of Visits 8) Gross 918.22 Tons Net 814.30

Built at Haverton Hill By whom built Jarness S.B. & Co Ltd Yard No. 337 When built 1940

Engines made at - By whom made - Engine No. - When made 1940

Boilers made at Stockton By whom made Stockton & Engos & Riley Bros Ltd 6444 Boiler No. 6445 When made 1940

Owners The Admiralty Port belonging to Hartlepool

VERTICAL DONKEY BOILER.

Made at Stockton By whom made Stockton C.E. & R. Bros Ltd 6444 Boiler No. 6445 When made 1940 Where fixed Boiler Room

Manufacturers of Steel South Durham Steel & Iron Co Ltd

Total Heating Surface of Boiler EACH 535 sq ft Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 2 - Vertical Multitubular Working pressure 130 lbs

Tested by hydraulic pressure to 245 lbs Date of test 26th August 1940 No. of Certificate 4004

Area of Firegrate in each Boiler 25 sq ft No. and Description of safety valves to each boiler Double Spring Loaded

Area of each set of valves per boiler per rule 4.610" as fitted 6.280" Pressure to which they are adjusted 130 lbs Are they fitted with easing gear Yes

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

Is oil fuel carried in the double bottom under boiler No Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated on tank top Largest internal dia. of boiler 6'-4" Height 14'-6"

Shell plates: Material Steel Tensile strength 28-32 tons Thickness Ends 5/8"

Are the shell plates welded or flanged No Description of riveting: circ. seams end SR DR long. seams D.R.D.B.S

Dia. of rivet holes in circ. seams 15/16" Pitch of rivets 2.12 2.93 2.97 Percentage of strength of circ. seams plate 55.8 68 rivets 53.8 74 Longitudinal joint plate 73.3 rivets 94.0

Working pressure of shell by rules 134.5 lbs Thickness of butt straps outer 5/8 inner 1/2

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished Material Steel

Tensile strength 26-30 tons Thickness 29/32 Radius 6'-0" (Outer) Working pressure by rules 153 lbs

Description of Furnace: Plain spherical or dished crown Dished Material Steel Tensile strength 26-30 tons

Thickness 13/16" External diameter top bottom Length as per rule Working pressure by rules

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

Diameter of stays over thread Radius of dished furnace crown 4'-6" (Outer) Working pressure by rule 183 lbs

Thickness of Ogee Ring plate 13/16" Diameter as per rule 6'-6" 5'-10" Working pressure by rule 140 lbs

Combustion Chamber: Material Steel Tensile strength 26-30 tons Thickness of top plate 21/32

Radius if dished Working pressure by rule Thickness of back plate 21/32 Diameter if circular

Length as per rule Pitch of stays 8" x 9 1/2" Are stays fitted with nuts or riveted over Riveted

Diameter of stays over thread Working pressure of back plate by rules 130 lbs

Tube Plates: Material Steel Tensile strength 26-30 tons Thickness 15/16 21/32 Mean pitch of stay tubes in nests 8 3/8"

If comprising shell, Dia. as per rule front 29/32 back 6 5/8" Pitch in outer vertical rows P3" 56" Dia. of tube holes FRONT stay 2 1/4" plain 2 1/16" BACK stay 2" plain 2"

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules front 137 lbs back 285 lbs

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 tons

Depth and thickness of girder at centre 7" 2 @ 5/8" Length as per rule 21 3/16"

Distance apart 12" No. and pitch of stays in each 1 @ 10 9/32" Working pressure by rule 187 lbs

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 Steel Tensile strength 26-30 tons Diameter 1 3/8" No. of threads per inch 9

Area supported by each stay 74.5 sq" Working pressure by rules 135 lbs Are the stays drilled at the outer ends No

Tubes: Material Hot Rolled Weldless Steel External diameter 2" Thickness 10.5 w.g.

No. of threads per inch 9 Pitch of tubes 3" x 3" Working pressure by rules P 215 lbs S 175 lbs

Manhole Compensation: Size of opening in 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 3 1/4"

Uptake: External diameter ☒ Thickness of uptake plate ☒

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,
STOCKTON CHEMICAL ENGINEERS & RILEY BOILERS LTD.

G. H. Riley Manufacturer.
DIRECTOR.

Dates of Survey while building: During progress of work in shops - Mar. 21, Apr. 17, May 9, July 1, 12, 14, 26, Aug. 26 Is the approved plan of boiler forwarded herewith Yes
(If not state date of approval.)
During erection on board vessel - - Total No. of visits 8

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No. LC 10 Indb Rpt

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey, in accordance with the Rule Requirements & approved plan. The materials & workmanship are good, & on completion the boilers were tested by hydraulic pressure to 245 lbs/sq" & found tight & satisfactory. The boilers securely fitted on board, & safety valves adjusted under steam to 130 lbs/sq", & found in order.

Survey Fee ... See Mely When applied for, ☒ 19
Travelling Expenses (if any) £ Refat When received, ☒ 19

Committee's Minute Assigned See Indb Rpt 16914

R. J. Eastliffe
Engineer Surveyor to Lloyd's Register of Shipping.