

REPORT ON BOILERS.

No. 17926.
10 OCT 1945

Received at London Office

Date of writing Report 5/10/1945 When handed in at Local Office 9/10/1945 Port of Middlesbrough

No. in Survey held at Stockton on Tees Date, First Survey 6th June 1944. Last Survey 2nd October 1945
Reg. Book on the VIC 98 A/MS 1070 (Number of Visits 50.) Tons Gross NetBuilt at Gainsborough By whom built J. Swatton (Gainsborough) L^d. Yard No. 1555 When built 1946
Engines made at Great Yarmouth By whom made Messrs Crabtree (1931) L^d Engine No. 690 When made
Boilers made at Stockton on Tees By whom made Stockton Chem Eng & Riley Boilers L^d Boiler No. 6860 When made 1945
Owners Ministry of War Transport Port belonging to Grimsby
managed by J. Barracough (Grimsby) L^d.

VERTICAL DONKEY BOILER.

Made at Stockton on Tees By whom made Stockton C.E. & Riley Boilers L^d Boiler No. 6860 When made 1945 Where fixed Hull

Manufacturers of Steel Appleby Fordingham Steel Co L^d

Total Heating Surface of Boiler 525 sq. ft. Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 1- Vertical Multitubular Working pressure 120 lbs. sq. in.

Tested by hydraulic pressure to 230 lbs. sq. in. Date of test 2/10/45 No. of Certificate 7156

Area of Firegrate in each Boiler 25 sq. ft. No. and Description of safety valves to each boiler 1- 2" C.I. Double

Area of each set of valves per boiler { per rule 4.56 / as fitted 6.28 Pressure to which they are adjusted 123 lbs. Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler Yes Smallest distance between boiler or uptake and bunkers or woodwork 14" Is oil fuel carried in the double bottom under boiler NONE Smallest distance between base of boiler and tank top plating NONE Is the base of the boiler insulated No Largest internal dia. of boiler 6'-6 7/16" Height 14'-6" Upper 9 1/16" Lower 15 3/32"

Shell plates: Material Steel Tensile strength 28-32 Thickness 28-32

Are the shell plates welded or flanged No Description of riveting: circ. seams { end SR Lap / inter DR long. seams DR-DBS

Dia. of rivet holes in { circ. seams 15/16" / long. seams 1 1/16" Pitch of rivets Upper 2-136 / Lower 2-816 Percentage of strength of circ. seams { plate 56.8 / rivets 47.2 of Longitudinal joint { plate 74 / rivets 109 combined 105

Working pressure of shell by rules 125 lbs. Thickness of butt straps { outer 3/8" / inner 7/16"

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

Tensile strength 26-30 Thickness 27/32" Radius 6'-0" Working pressure by rules 121 lbs.

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

Thickness 27/32" External diameter { top 5'-10" / bottom - Length as per rule 2'-9" Working pressure by rules 149 lbs.

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

Diameter of stays over thread Yes Radius of spherical or dished furnace crown 4'-0 27/32" Working pressure by rule 135 lbs.

Thickness of Ogee Ring 27/32" Diameter as per rule { D 6'-6" / a 5'-10" Working pressure by rule 129 lbs.

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

Radius if dished Yes Working pressure by rule 196 lbs. Thickness of back plate 21/32" Diameter if circular Yes

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

Diameter of stays over thread 1 3/8" Working pressure of back plate by rules 123 lbs.

Tube Plates: Material { front Steel / back Steel Tensile strength { 26-30 / 26-30 Thickness { 1 1/16" / 21/32" Mean pitch of stay tubes in nests 10 1/8"

If comprising shell, Dia. as per rule { front 6'-4" / back - Pitch in outer vertical rows { 7" / 7" Dia. of tube holes FRONT { stay 2 1/2" / plain 2 5/16" BACK { stay 2 1/2" / plain 2 1/4"

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 125 lbs. / back -

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

Depth and thickness of girder at centre 5 1/4" x 7/8" Length as per rule

Distance apart 5 7/8" No. and pitch of stays in each Working pressure by rule

Vic 98

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 Diameter { at ~~end of~~ ^{over} threads 1 1/8" No. of threads per inch 9

Area supported by each stay 80.75 Working pressure by rules 125.6 Are the stays drilled at the outer ends No

Tubes: Material Hot rolled weldless steel External diameter { plain 2 1/4" stay 2 1/4" Thickness { 10 W.S. 9/16"

No. of threads per inch 9 Pitch of tubes 3 1/2" x 3 1/2" Working pressure by rules 190 lbs

Manhole Compensation: Size of opening in shell clear 16" x 12" Section of compensating ring None No. of rivets and diameter of rivet holes ☒ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged 3 1/2"

Uptake: External diameter ☒ Thickness of uptake plate ☒

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

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,
Stockton Chemical Engineers & Shipbuilders Ltd.

H. G. Orley Manufacturer.
DIRECTOR.

June 6, 12, 28, July 3, 12, 29, Aug 2, 9, 16, 30, Sept. 6, 21, Oct. 5, 13, 19, 23, Nov. 2, 9, 16, 21, 28,
Dec. 6, 14, 21, 29, 1945 Jan 13, 23, Feb 1, 13, 22, March 1, 6, 13, 23, 28,
April 1, 12, 26, 30, June 20, July 13, 26, Aug 3, 14, 29, Sept 7, 13,
Oct. 1, 2, Is the approved plan of boiler forwarded herewith 2575/44
 (If not state date of approval.)

Dates of Survey { During progress of work in shops - - }
 while building { During erection on board vessel - - }

Total No. of visits 50

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

This Boiler has been constructed under Special Survey & in accordance with the Rule Requirements & approved plan.

The material & workmanship are good & on completion the boiler was hydraulically tested to 230 lbs. & found satisfactory.

This boiler has been constructed for contract A/MS/962 Destination unknown

Above boiler installed in 80' steam light 'VIC 98' at Hull by Chas. R. Holmes, Examined under steam, safety valves adjusted to 123 lbs (P & 5 1/4") accumulation test held and on completion of all tests the boiler was found satisfactory.

L. S. Shields, Hull.

Survey Fee ... £ 4 : 4 : } When applied for, 9/10/1945
 Travelling Expenses (if any) £ : : } When received, 19

for self & C.R. Stuart. SWBOD
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 1 FEB 1946
 Assigned see minute on J.E. R.H.