

REPORT ON BOILERS.

No. 3514

Received at London Office.....

Date of writing Report 8th July 1949 When handed in at Local Office 15th July 1949 Port of Sunderland

No. in Reg. Book. Survey held at Sunderland Date, First Survey see Rpt 4 Last Survey 19

on the SS POOLE QUAY (Number of Visits.....) Tons Gross 1366
Net 662

Master. Built at Sunderland By whom built Wm Pickering & Sons Ltd Yard No. 312 When built 1949

Engines made at Sunderland By whom made R E Marine Eng Co (1938) Ltd Engine No. 4194 When made 1949

Boilers made at Sunderland By whom made R E Marine Eng Co (1938) Ltd Boiler No. 4194 When made 1949

Nominal Horse Power 19.6 Owners British Electricity Authority Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles & Steel Co of Scotland (Letter for Record S)

24-5 Total Heating Surface of Boilers 2950 sq ft = 2660 Is forced draught fitted yes Coal or Oil fired Coal

No. and Description of Boilers 2 S E Multitubular Working Pressure 220 lbs/0

Tested by hydraulic pressure to 380 lbs/0 Date of test 31st Dec 11-3-49 No. of Certificate 4724 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 33 sq ft No. and Description of safety valves to each boiler 2 - 2 1/2 Ordinary Enclosed Spring

Area of each set of valves per boiler per Rule 7.970 Pressure to which they are adjusted 220 lbs/0 Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler —

Smallest distance between boilers or uptakes and bunkers or woodwork 2'-9" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 2'-0" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 12'-3 3/4" Length 11'-0" Shell plates: Material Steel Tensile strength 29/33 T

Thickness 1 3/16" Are the shell plates welded or flanged — Description of riveting: circ. seams end D.R. Lap

long. seams TRDBS Diameter of rivet holes in 1 1/4" Pitch of rivets 3.895

Percentage of strength of circ. end seams plate 67.80% Percentage of strength of circ. intermediate seam plate 42.00%

Percentage of strength of longitudinal joint plate 85.67% Working pressure of shell by Rules 220 lbs/0

Thickness of butt straps outer 29/32 No. and Description of Furnaces in each Boiler 2 Deighton Type

Material Steel Tensile strength 26/30 T Smallest outside diameter 3'-8 1/8"

Length of plain part top 10 1/2" Thickness of plates 1 1/16" Description of longitudinal joint Gas weld

Dimensions of stiffening rings on furnace or c.c. bottom — Working pressure of furnace by Rules 226 lbs/0

End plates in steam space: Material Steel Tensile strength 26/30 T Thickness 1 3/32" Pitch of stays 1'-3" X 1'-4"

How are stays secured Auto both sides Working pressure by Rules 231 lbs/0

Tube plates: Material front Steel Tensile strength 26/30 T Thickness 3/32"

Mean pitch of stay tubes in nests 10.625" Pitch across wide water spaces 14 1/4" X 8 1/2" Working pressure front 303 lbs/0

Girders to combustion chamber tops: Material Steel Tensile strength 25/32 T Depth and thickness of girder back 228 lbs/0

at centre 9" X 2 2 7/8" Length as per Rule 2'-8 7/8" Distance apart 10" No. and pitch of stays in each 2 @ 10 1/4"

Tensile strength 26/30 T Thickness: Sides 13/16" Back 25/32" Top 13/16" Bottom 13/16"

Pitch of stays to ditto: Sides 10 1/4" X 10" Back 10 3/8" X 9" Top 10 1/4" X 10" Are stays fitted with nuts or riveted over Back - Auto both ends

Working pressure by Rules 228 lbs/0 Front plate at bottom: Material Steel Tensile strength 26/30 T

Thickness 3/32" Lower back plate: Material Steel Tensile strength 26/30 T Thickness 29/32"

Pitch of stays at wide water space 15" X 9" Are stays fitted with nuts or riveted over Auto

Working pressure 224 lbs/0 Main stays: Material Steel Tensile strength 28/32 T

Diameter At body of stay 2 3/4", 2 1/2", 2 1/4" No. of threads per inch 6 Area supported by each stay 288 sq"

Working pressure by Rules 227 lbs/0 Screw stays: Material Steel Tensile strength 26/30 T

Diameter At turned off part 2 1/4", 2 1/8", 2" No. of threads per inch 9 Area supported by each stay 102.5 sq"

Working pressure by Rules 242 lb 10" Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part 2 1/4" 2 1/8" or Over threads. 239 lb 10" No. of threads per inch 9 ✓ Area supported by each stay 136 1/2" Working pressure by Rules 239 lb 10" Tubes: Material Steel External diameter { Plain 3 1/4" ✓ Thickness 8 1/4" No. of threads per inch 9 Stay 3 1/4" Pitch of tubes 4 1/2" X 4 1/4" Working pressure by Rules 220 lb 10" Manhole compensation: Size of opening shell plate 20" X 16" Section of compensating ring 8 1/4" X 1 1/4" No. of rivets and diameter of rivet holes 32 1 3/2" Outer row rivet pitch at ends 9 1/2" Depth of flange if manhole flanged 3 7/8" 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 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 forgings - 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 easing gear - Working pressure as per Rules - Pressure to which the safety valves are adjusted - Hydraulic test pressure tubes - forgings and castings - and after assembly in place - Are drain cocks 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 NORTH EASTERN MARINE ENGINEERING CO. (1888) LTD.

The foregoing is a correct description,

RESIDENT MANAGER.

Dates of Survey { During progress of work in shops - - - see Rpt 4 while building { During erection on board vessel - - -

Are the approved plans of boiler and superheater forwarded here with (If not state date of approval.) Retained for use on duplicate copy plan approved. 6-5-24 Total No. of visits

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

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

These boilers have been constructed in accordance with the approved plans, Secretary's letter, and the Requirements of the Rules. The workmanship and materials are good. These boilers have been efficiently fitted on board the vessel, examined under steam and the safety valves adjusted to working pressure 220 lb 10". Accumulation tests carried out with satisfactory results.

A satisfactory sea trial was carried out on 29th June 1949.

Survey Fee ... £ see machinery } When applied for, 19... Travelling Expenses (if any) £ see Rpt 4 } When received, 19...

J. Grieve John Lundgren Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 5 AUG 1949

Assigned See F.E. Melby. rpt.



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