

REPORT ON BOILERS.

No. 17181

Received at London Office

12 NOV 1932

Date of writing Report 11-11-1932 When handed in at Local Office 11-11-1932 Port of Aberdeen

No. in Survey held at
Reg. Book.

Aberdeen

Date, First Survey 29-7-32

Last Survey 3-11-1932

on the S.S. "PARKNASILLA".

(Number of Visits 13.)
Tons { Gross 845.88
Net 448.26

Master Built at Aberdeen By whom built J. Lewis & Sons Ltd. Yard No. 127 When built 1932

Engines made at Aberdeen By whom made J. Lewis & Sons Ltd. Engine No. 210 When made 1932

Boilers made at Aberdeen By whom made J. Lewis & Sons Ltd. Boiler No. 174 When made 1932

Nominal Horse Power 131 Owners J. Kelly Port belonging to Belfast.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles, Ltd. (Letter for Record S. ✓)

Total Heating Surface of Boilers 2357 sq. ft. Is forced draught fitted no Coal or Oil fired Coal. ✓

No. and Description of Boilers One S.E. Main. Working Pressure 200 lb. ✓

Tested by hydraulic pressure to 350 lb. Date of test 4-10-32 No. of Certificate 1115 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 60 sq. ft. No. and Description of safety valves to each boiler 2 spring loaded.

Area of each set of valves per boiler { per Rule 13.7 sq. ft. ✓
as fitted 14.13 sq. ft. ✓ Pressure to which they are adjusted 200 lb. 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 abt 4-6" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating In tank Is the bottom of the boiler insulated no

Largest internal dia. of boilers 15'-0 3/8" ✓ Length 10'-9" ✓ Shell plates: Material Steel Tensile strength 29/33 tons.

Thickness 1 5/16" ✓ Are the shell plates welded or flanged no Description of riveting: circ. seams { end D.R. ✓
inter. ✓long. seams T.R.D.P.S. ✓ Diameter of rivet holes in { circ. seams 1 3/8" ✓
long. seams 1 3/8" ✓ Pitch of rivets { 4.113" ✓
9.5" ✓Percentage of strength of circ. end seams { plate 66.5
rivets 43.7. Percentage of strength of circ. intermediate seam { plate ✓
rivets ✓Percentage of strength of longitudinal joint { plate 85.5
rivets 88.5 Working pressure of shell by Rules 200 lb.
combined 88.79Thickness of butt straps { outer 1" ✓
inner 1 1/8" ✓ No. and Description of Furnaces in each Boiler 3 plain. ✓

Material Steel Tensile strength 26/30 tons ✓ Smallest outside diameter 43 3/8" ✓

Length of plain part { top 76.97" ✓
bottom 70.47" ✓ Thickness of plates { crown 13" ✓
bottom 16" ✓ Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 200 lb.

End plates in steam space: Material Steel ✓ Tensile strength 26/30 tons ✓ Thickness 1 1/4" ✓ Pitch of stays 20 1/4" x 17 1/2" ✓

How are stays secured Double nuts. ✓ Working pressure by Rules 202.3 lb.

Tube plates: Material { front Steel ✓
back Steel ✓ Tensile strength { 26/30 tons ✓
-do- ✓ Thickness { 29/32 25" ✓
32 ✓Mean pitch of stay tubes in nests 10.39" ✓ Pitch across wide water spaces 14 1/8" x 9" ✓ Working pressure { front 201 lb.
back 202.5 lb.

Girders to combustion chamber tops: Material Steel ✓ Tensile strength 29/33 tons ✓ Depth and thickness of girder

at centre 11" x 1 1/8" ✓ Length as per Rule 34.53" ✓ Distance apart 9" ✓ No. and pitch of stays

in each 3 @ 8 1/8" ✓ Working pressure by Rules 204 lb. Combustion chamber plates: Material Steel ✓

Tensile strength 26/30 tons ✓ Thickness: Sides 21" 32 ✓ Back 11" 16 ✓ Top 21" 32 ✓ Bottom 21" 32 ✓

Pitch of stays to ditto: Sides 8 1/8" x 9 1/8" ✓ Back 9 x 9 1/8" ✓ Top 8 1/8" x 9" ✓ Are stays fitted with nuts or riveted over nuts. ✓

Working pressure by Rules 200 lb. Front plate at bottom: Material Steel ✓ Tensile strength 26/30 tons.

Thickness 29" 32 ✓ Lower back plate: Material Steel ✓ Tensile strength 26/30 tons. Thickness 27" 32 ✓

Pitch of stays at wide water space 14 1/8" x 9 1/8" ✓ Are stays fitted with nuts or riveted over nuts. ✓

Working Pressure 205 lb. Main stays: Material Steel ✓ Tensile strength 28/32 tons. ✓

Diameter { At body of stay, 3 1/8" dia. ✓
or
Over threads No. of threads per inch 6 ✓ Area supported by each stay 354.5 sq. in.

Working pressure by Rules 208 lb. Screw stays: Material Steel Tensile strength 26/30 tons. ✓

Diameter { At turned off part, 1 5/8" + 1 3/4" ✓
or
Over threads No. of threads per inch 9 ✓ Area supported by each stay 74.2 + 82.2 sq. in.

Working pressure by Rules 205 lb. Are the stays drilled at the outer ends no. Margin stays: Diameter ^{At turned off part,} 1 7/8" ^{or} 1 7/8" ^{Over threads} ✓

No. of threads per inch 9 ✓ Area supported by each stay 105.4 sq" ✓ Working pressure by Rules 202.3 lb.

Tubes: Material Iron External diameter ^{Plain} 3 1/4" ✓ ^{Stay} 3 1/4" ✓ Thickness 1/4" + 5/16" ✓ No. of threads per inch 9 ✓

Pitch of tubes 4 1/2" ✓ Working pressure by Rules 230 lb. Manhole compensation: Size of opening in shell plate 19" x 15" ✓ Section of compensating ring 2-9" x 2-5" x 1 5/16" ✓ No. of rivets and diameter of rivet holes 48 @ 1 3/8 dia. ✓

Outer row rivet pitch at ends 9 1/2" ✓ Depth of flange if manhole flanged 3" ✓ 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 _____

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 _____ 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 yes.

For JOHN LEWIS & SONS LTD.
The foregoing is a correct description.
John Lewis & Sons Ltd. Manufacturer.
SECRETARY.

Dates of Survey ¹⁹³²
During progress of work in shops - - July 29, Aug. 3, 11, 15, 23, 31, Sept 6, 12, 22 ✓ the approved plans of boiler and superheater forwarded herewith yes
while building ^{Oct. 4.}
During erection on board vessel - - Oct. 21 Nov. 2, 3 (If not state date of approval.)
Total No. of visits 13.

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.)

This boiler has been constructed under special survey in accordance with the approved plan and the Rules of this Society.
The materials and workmanship are good.
The boiler has been satisfactorily fitted on board the vessel, examined under working conditions, and found good. The safety valves have been adjusted under steam and satisfactorily tested for accumulation.

Survey Fee ... See Report on Machinery When applied for, 19
Travelling Expenses (if any) £ ... When received, 19

P. Fitzgibbon
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 18 NOV 1932

FRI 6 OCT 1933

Assigned

See Report attached



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