

## REPORT ON BOILERS.

No. 124547

Received at London Office

9 OCT 1946

Date of writing Report 10/9/46 When handed in at Local Office 19... Port of Liverpool

No. in Survey held at Birkenhead Date, First Survey 15/5/45 Last Survey 6/9/1946

on the A.S. JOHN HOLT. (Number of Visits.....) Tons Gross 3818 Net.....

Master Built at Birkenhead By whom built Cammell Laird &amp; Co Yard No. 1171 When built 1946

Engines made at Birkenhead By whom made Cammell Laird &amp; Co Engine No. 1171 When made 1946

Boilers made at Birkenhead By whom made Cammell Laird &amp; Co Boiler No. 1171 When made 1946

Nominal Horse Power..... Owners..... Port belonging to.....

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvett &amp; Co (Letter for Record (S))

Total Heating Surface of Boilers 5700 sq ft Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers 2 S.E. Working Pressure 220 lb

Tested by hydraulic pressure to 380 lb Date of test 8-1-46 No. of Certificate 2681 2/4 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 7.58 sq ft No. and Description of safety valves to each boiler 2 3/4 double Imp. H. lift. Pressure to which they are adjusted 220 lb Are they fitted with easing gear Yes

Area of each set of valves per boiler 7.94 sq ft In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Longest distance between boilers or uptakes and bunkers or woodwork well clear Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating well clear Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 15'-9" Length 11'-6" Shell plates: Material Steel Tensile strength 30.34 Ton

Thickness 1 1/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams end 3.74" inter 10.125"

Long. seams T.R.-D.B.S. Diameter of rivet holes in circ. seams 1 1/2" Pitch of rivets 10.125"

Percentage of strength of circ. end seams 49.5% Percentage of strength of circ. intermediate seam 85.18%

Percentage of strength of longitudinal joint 85.5% Working pressure of shell by Rules 222 lb

Thickness of butt straps 1 1/8" No. and Description of Furnaces in each Boiler Three-beighlon Section

Material Steel Tensile strength 26.30 Ton Smallest outside diameter 48 1/8"

Length of plain part 3/4" Thickness of plates 3/4" Description of longitudinal joint Weld

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 229 lb

End plates in steam space: Material Steel Tensile strength 26.30 Ton Thickness 1 1/32" Pitch of stays 18" x 20"

How are stays secured D.N. Working pressure by Rules 222 lb

Tube plates: Material Steel Tensile strength 26.30 Ton Thickness 27/32"

Lean pitch of stay tubes in nests 10 1/2" Pitch across wide water spaces 14" Working pressure front 238 lb back 232 lb

Orders to combustion chamber tops: Material Steel Tensile strength 28.32 Ton Depth and thickness of girder

centre 9 1/4" x 7 1/8" dbles Length as per Rule 32 5/8" Distance apart 9 1/2" No. and pitch of stays

each 3 @ 8 1/4" Working pressure by Rules 235 lb Combustion chamber plates: Material Steel

Tensile strength 26.30 Ton Thickness: Sides 23/32" Back 1 1/6" Top 23/32" Bottom 29/32"

Pitch of stays to ditto: Sides 9 x 8 3/4" Back 10 x 7 max Top 9 1/2 x 8 1/4" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 222 lb Front plate at bottom: Material Steel Tensile strength 26.30 Ton

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26.30 Ton Thickness 29/32"

Pitch of stays at wide water space 14 1/2" x 8 3/4" Are stays fitted with nuts or riveted over nuts

Working pressure 234 lb Main stays: Material Steel Tensile strength 28.32 Ton

Diameter At body of stay 3 3/8" No. of threads per inch 6 Area supported by each stay 18" x 20"

Working pressure by Rules 228 lb Screw stays: Material Steel Tensile strength 26.30 Ton

Diameter At turned off part 1 3/4" No. of threads per inch 9 Area supported by each stay 78 sq in



See letter 2.11.46  
from Res.

Working pressure by Rules 230 ch Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part... 1 7/8"  
or Over threads... 233 ch  
No. of threads per inch 9 Area supported by each stay 95 sq" Working pressure by Rules 233 ch  
Tubes: Material Steel External diameter { Plain... 3" Thickness { 8 gauge No. of threads per inch 9  
Stay... 3" 5/16" - 3/8"  
Pitch of tubes 4 1/4" x 4 1/8" Working pressure by Rules 237 ch Manhole compensation: Size of opening  
shell plate 17 1/4" x 21 1/4" Section of compensating ring 3' 1" x 2' 8" No. of rivets and diameter of rivet holes 36 @ 1 1/2"  
Outer row rivet pitch at ends 10 1/8" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material  
Tensile strength Thickness of shell Description of longitudinal joint  
Diameter of rivet holes Pitch of rivets Percentage of strength of joint  
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  
of rivets in outer row in dome connection to shell

Type of Superheater NE Marine

Manufacturers of Tubes... Steel forgings... Steel castings...  
Number of elements 6 open Bl. Material of tubes S. S. Steel Internal diameter and thickness of tubes 17 mm x 2.5 mm  
Material of headers Steel Tensile strength Thickness 7/8" min Can the superheater be shut off  
the boiler be worked separately yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes  
Area of each safety valve 3.14 Are the safety valves fitted with easing gear yes Working pressure as  
Rules 220 ch Pressure to which the safety valves are adjusted 225 ch Hydraulic test press  
tubes 1500 ch forgings and castings 600 ch and after assembly in place 440 ch Are drain cock  
valves fitted to free the superheater from water where necessary yes  
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

FOR AND ON BEHALF OF  
CAMMELL LARSEN & CO. LIMITED description,  
J. D. Davey Manufacturer

total H.S. = 2060 lb

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith  
while building { During erection on board vessel - - } (If not state date of approval.)  
Total No. of visits Retained for sister vessel No 1172.

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Jonathan Holt No 1113

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey, to approved plans in accordance with the Society's Rules. Materials and workmanship are good. They are installed in the s.s. John Holt, tried under working conditions and found satisfactory.

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

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned See Minutes on Liverpool & Machinery Report.



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