

REPORT ON BOILERS.

No. 20549.
JUN -8 1938

Received at London Office

Writing Report 14. H 38 When handed in at Local Office 3RD June. 1938. Port of Grimmouth

Survey held at Grimmouth Date, First Survey 8TH OCTOBER. 1934. Last Survey 19
on the M/S "David" (Number of Visits) Tons { Gross 8053.30.
Net 4464.94.
Built at P. Glasgow By whom built Lithgow & Co Yard No. 907 When built 1938
Boilers made at Grimmouth By whom made John & Vincent & Co Engine No. 1114 When made 1938
Boilers made at ditto By whom made ditto Boiler No. 1114 When made 1938
Horse Power Owners Anglo Sarsou Petroleum Co Port belonging to London

LONGITUDINAL BOILERS DONKEY.

Manufacturers of Steel Steel Co of Scotland, Glasgow, Scottish Iron & Steel Co (Letter for Record S)
Heating Surface of Boilers 2502 sq ft Is forced draught fitted yes Coal or Oil fired oil
and Description of Boilers one single ended Working Pressure 180
Tested by hydraulic pressure to 320 Date of test 8.2.38 No. of Certificate 2140 Can each boiler be worked separately yes
No. of Firegrate in each Boiler 16 No. and Description of safety valves to each boiler Double Spring
No. of each set of valves per boiler 16 Pressure to which they are adjusted 185 Are they fitted with easing gear yes
Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler yes
Least distance between boilers or uptakes and bunkers 2' 6" Is oil fuel carried in the double bottom under boilers no
Least distance between shell of boiler and tank top plating 17' 0" Is the bottom of the boiler insulated yes
Least internal dia. of boilers 14' 6" Length 11' 6" Shell plates: Material S Tensile strength 29.33
Thickness 1 5/32" Are the shell plates welded or flanged yes Description of riveting: circ. seams { end DR
seams TRIDBS Diameter of rivet holes in { circ. seams 1 7/32" Pitch of rivets { inter. 3.52
Percentage of strength of circ. end seams { plate 65.4 Percentage of strength of circ. intermediate seam { plate 85.32
rivets 45.3 rivets 85.45 Working pressure of shell by Rules 180
Percentage of strength of longitudinal joint { plate 85.45 rivets 84.49
Thickness of butt straps { outer 7/8" inner 1" No. and Description of Furnaces in each Boiler 3 Deighton
Material S Tensile strength 26.30 Smallest outside diameter 3' 4 1/8"
Length of plain part { top 9' 11/16" bottom 9' 11/16" Description of longitudinal joint weld
Dimensions of stiffening rings on furnace or c.c. bottom yes Working pressure of furnace by Rules 189
Plates in steam space: Material S Tensile strength 26.30 Thickness 1 9/32" Pitch of stays 21' 19 1/2"
Are stays secured yes Working pressure by Rules 187
Furnace plates: Material { front S back S Tensile strength { 26.30 Thickness { 1 1/16"
Pitch of stay tubes in nests 9' 37 1/2" Pitch across wide water spaces 13' 1/2" Working pressure { front 225
Boilers to combustion chamber tops: Material S Tensile strength 29.33 Depth and thickness of girder { back 191
Centre 8 1/2' x 3 1/4' (2) Length as per Rule 2' 4 5/8" Distance apart 9' No. and pitch of stays
each 3 at 4 1/2" Working pressure by Rules 193 Combustion chamber plates: Material S
Tensile strength 26.30 Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 7/8"
Pitch of stays to ditto: Sides 4 1/2' x 7 1/16" Back 4 1/16' x 4 1/2" Top 9' x 4 1/2" Are stays fitted with nuts or riveted over Riveted
Working pressure by Rules 184 Front plate at bottom: Material S Tensile strength 26.30
Thickness 1 5/16" Lower back plate: Material S Tensile strength 26.30 Thickness 1 3/16"
Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over yes
Working Pressure 189 Main stays: Material S Tensile strength 28.32
Pitch of stays { At body of stay, 3 1/4" or Over threads 1 No. of threads per inch 6 Area supported by each stay 409.50
Working pressure by Rules 191 Screw stays: Material S Tensile strength 26.30
Pitch of stays { At turned off part, 1 3/8" or Over threads 1 No. of threads per inch 9 Area supported by each stay 55.70

Working pressure by Rules 184. Are the stays drilled at the outer ends 910 ✓ Margin stays: Diameter { At turned off part, or Over threads. 15/8" ✓
No. of threads per inch 9 ✓ Area supported by each stay 80.35 Working pressure by Rules 189
Tubes: Material 910 ✓ External diameter { Plain 21 1/2" ✓ Thickness 9/32" ✓ No. of threads per inch 9 ✓
Pitch of tubes 33/4" ✓ Working pressure by Rules 210 Manhole compensation: Size of opening in S
shell plate 16 1/2" x 20 1/2" ✓ Section of compensating ring 2 1/4" x 2 1/4" x 1 9/32" No. of rivets and diameter of rivet holes 38 at 1 5/16" ✓
Outer row rivet pitch at ends 9 1/4" ✓ Depth of flange if manhole flanged 3 1/4" ✓ 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
of rivets in outer row in dome connection to shell

Type of Superheater

Number of elements Material of tubes Manufacturers of { Tubes Steel forgings Steel castings Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness Can the superheater be shut off
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
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 foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.
Director.

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

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No. M/s "Adula" 4th Regt. 822034

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler was built in accordance with the approved plans. The workmanship is of good quality. This Report is a comparison of the machinery.

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

W. H. Gordon, M. A. S. S. E. S.
Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute GLASGOW 7 - JUN 1938
Assigned ACCOMPANYING MACHINERY REPORT.