

REPORT ON BOILERS.

No. 105889

Received at London Office

11 FEB 1949

Date of writing Report 17-1-49 19 When handed in at Local Office 9 FEB 1949 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Wallsend Date, First Survey 11-3-47 Last Survey 21-1-49 19
 on the MOTOR TANKER PALUDINA. (Number of Visits 92) Gross 6414.45 Tons Net 2926.30

built at Wallsend By whom built Swan, Hunter & Wigham Richardson Ltd Yard No. 1771 When built 1949-1mo
 engines made at ditto By whom made Wallsend Slipway & Eng'g. Co. Ltd Engine No. 1007 When made 1949
 boiler made at ditto By whom made ditto Boiler No. 1007 When made 1949.
 Nominal Horse Power 2868 = 239. Owners Anglo Saxon Petroleum Co. Ltd Port belonging to LONDON.
 12. (by 1947 May Rule)

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd, Glasgow (Letter for Record S.)
 Total Heating Surface of Boiler 2868 sq. ft. Is forced draught fitted Yes Coal or Oil fired oil fired
 No. and Description of Boilers ONE. Single ended Working Pressure 180 LBS/SQ IN
 Tested by hydraulic pressure to 320 lbs Date of test 19-8-48 No. of Certificate N°1305. Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two of 2 1/2" Cockburn's Improved High Lift
 Area of each set of valves per boiler (per Rule 18.5 sq. ins Pressure to which they are adjusted 185 lbs/sq. in Are they fitted with easing gear Yes.
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler NO MAIN BOILER
 Smallest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers No.
 Smallest distance between shell of boiler and tank top plating Boiler on TWIN DECK FLAT AHEAD MAIN ENGINES. Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 16'-0 7/16" Length 12'-6" mean Shell plates: Material M. Stl Tensile strength 29-33 tons
 Thickness 1 9/32" Are the shell plates welded or flanged No Description of riveting: circ. seams and D.R. OVERLAP.
 Circ. seams T.R. Dble butt straps Diameter of rivet holes in (circ. seams 1 9/16" Pitch of rivets 3.9" inter.
 Percentage of strength of circ. end seams (plate 66. rivets 43. Percentage of strength of circ. intermediate seam (plate rivets
 Percentage of strength of longitudinal joint (plate 85.4 rivets 88.0 combined 88.4
 Thickness of butt straps (outer 3 1/32" inner 1 3/32" No. and Description of Furnaces in each Boiler 3 C.F. Deighton type.
 Material M. Stl Tensile strength 26 to 30 tons Smallest outside diameter 4'-1 1/2"
 Length of plain part (top bottom Thickness of plates (crown 5/8" Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom NIL.
 End plates in steam space: Material M. Stl Tensile strength 26 to 30 tons Thickness 1 13/32" Pitch of stays 22 1/2" x 22"
 How are stays secured NUTTED inside & outside
 Tube plates: Material (front M Stl Tensile strength 26 to 30 tons Thickness Front 1" Back 13/16"
 Mean pitch of stay tubes in nests 11 7/8" x 8 1/4" Pitch across wide water spaces 13 1/2"
 Girders to combustion chamber tops: Material M. Stl Tensile strength 29 to 33 tons Depth and thickness of girder
 At centre 10 3/4" x 3/4" dble Length as per Rule 3'-2 7/16" Distance apart 10" No. and pitch of stays
 Results each 3 at 9 5/8" Combustion chamber plates: Material M. Stl.
 Tensile strength 26 to 30 tons Thickness: Sides 13/16" Back 13/16" Top 13/16" Bottom 13/16"
 Pitch of stays to ditto: Sides 9 5/8" x 9" Back 9" x 8 5/8" Top 10" x 9 5/8" Are stays fitted with nuts or riveted over BACK MARGINAL AND GIRDER STAYS, WITH NUTS. REMAINDER ARE RIVETED OVER.
 Front plate at bottom: Material M. Stl Tensile strength 26 to 30 tons Thickness 15/16"
 Thickness 1" Lower back plate: Material M. Stl Tensile strength 26 to 30 tons Thickness 15/16"
 Pitch of stays at wide water space 14" x 9" Are stays fitted with nuts or riveted over marginal stays - WITH NUTS. REMAINDER ARE RIVETED OVER.
 Main stays: Material M. Stl Tensile strength 28 to 32 tons
 Diameter (At body of stay 3 1/2" No. of threads per inch 6.
 (Over threads 3 1/2" at back end + 3 3/4" at front.
 of Shippincrow stays: Material M. Stl Tensile strength 26 to 30 tons
 Diameter (At turned off part 1 5/8" + Top of C. Chm 1 3/4" No. of threads per inch 9.

CONT'D OVER.

© 2021

Lloyd's Register Foundation

Continuation of Rpt on Donkey Boilers of M.V. PALUDINA.

Are the stays drilled at the outer ends No. Margin stays: Diameter { At turned off part 1 3/4"
Over threads

No. of threads per inch 9.

Tubes: Material Seamless Steel External diameter { Plain 2 1/2"
Stay

Pitch of tubes 4 1/8" x 3 7/8" Thickness { 9 WG.
5/16" No. of threads per inch 9.

Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 18" x 1 9/32" No. of rivets and diameter of rivet holes 44 at 1 5/16"

Outer row rivet pitch at ends 9" Depth of flange if manhole flanged 3 9/32" Steam Dome: Nil

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 Thickness of crown No. and diameter of stays Inner radius of crown

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 NIL 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

Area of each safety valve Are the safety valves fitted with easing gear

Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes forgings and 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.

The foregoing is a correct description,
FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED

G. B. Kerr Manufacturer.
DIRECTOR

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

PLEASE SEE REPORT 48

Are the approved plans of boiler and superheater forwarded herewith Yes
(If not state date of approval.)

Total No. of visits 92

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

NWC/TME RPT. 105153.

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

This Donkey Boiler has been constructed under Special Survey in accordance with the approved plans and the Society's Rules, and the materials and workmanship are good.

The Boiler has been efficiently fitted on board, tested under steam under working conditions and found satisfactory

See also Machy Rpt. 46.

Survey Fee £ 47:16/-

When applied for, Not Yet 19

Travelling Expenses (if any) See Rpt 46.

When received, 19

A. Watt.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 1 APR 1940

Assigned

See F.E. machy. rpt.



© 2021

Lloyd's Register
Foundation