

Rpt. 5b.

REPORT ON BOILERS.

No. 88484

Received at London Office 23 DEC 1924

Date of writing Report 3rd Oct. 1925 23 DEC 1924 When handed in at Local Office 3rd October 1925 23 DEC 1924 Port of London & Gothenburg

No. in Reg. Book. 17935 Survey held at Loughborough Date, First Survey 10th June, 1925 27th November 1924 Last Survey 1st October, 1925 22nd Dec 1924

on the Donkey Boiler No 4743 on the Twin screw vessel "DELHI" (Number of Visits 4+3) Tons {Gross 4571 Net 2606

Built at Motala Gothenburg By whom built A/B Lindholmen-Motala Yard No. 5923 When built 1925

Engines made at Stockholm By whom made Aktieb. Atlas-Diesel Engine No. 50047 50048 When made 1925

Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Owners Aktieb. Svenska Ostasiatiska Komp. Port belonging to Gothenburg

VERTICAL DONKEY BOILER.

Made at Loughborough By whom made Halter W. Colman & Co. Ltd Boiler No. 4743 When made 1924 Where fixed ✓

Manufacturers of Steel David Colville & Sons Ltd

Total Heating Surface of Boiler 9.35 m² = 100 Sqft Is forced draught fitted ✓ Coal or Oil fired Oil

No. and Description of Boilers One Vertical Cross Tube Working pressure 85 lbs

Tested by hydraulic pressure to 170 lbs Date of test 22nd December 1924 No. of Certificate 1278

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler Double 2 1/2" Marine Spring type

Area of each set of valves per boiler {per rule... as fitted...} 6.285 Pressure to which they are adjusted 80 lbs Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler ✓ No main boilers Smallest distance between boiler or uptake and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating 3'

Is the base of the boiler insulated ✓ Largest internal dia. of boiler 4'-0" Height 11'-4"

Shell plates: Material Steel Tensile strength 28/32 tons Thickness 3/8"

Are the shell plates welded or flanged No Description of riveting: circ. seams {end... inter...} SR Lap long. seams SR Lap

Dia. of rivet holes in {circ. seams... long. seams...} 3/4" Pitch of rivets {circ. seams... long. seams...} 2 1/16" Percentage of strength of circ. seams {plate... rivets...} 62.5 48.3 of Longitudinal joint {plate... rivets...} 71 75

Working pressure of shell by rules 143 lbs Thickness of butt straps {outer... inner...} ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial spherical Material Steel

Tensile strength 26/30 tons Thickness 1/2" Radius 4'-0" Working pressure by rules 123 lbs

Description of Furnace: Plain, spherical, or dished crown Dished Material Steel Tensile strength 26/30 tons

Thickness 7/16" External diameter {top... bottom...} 3'-3" 3'-7" Length as per rule 29" between stays Working pressure by rules 101 lbs

Pitch of support stays circumferentially 7.3" and vertically 29" Are stays fitted with nuts or riveted over Riveted

Diameter of stays over thread 1" 8 threads Radius of spherical or dished furnace crown 3'-3" x 1/2" Working pressure by rule 150 lbs

Thickness of Ogee Ring 7/16" furnace flanged Diameter as per rule {D... d...} ✓ Working pressure by rule ✓

Combustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓

Radius if dished ✓ Working pressure by rule ✓ Thickness of back plate ✓ Diameter if circular ✓

Length as per rule ✓ Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Working pressure of back plate by rules ✓

Tube Plates: Material {front... back...} ✓ Tensile strength {front... back...} ✓ Thickness {front... back...} ✓ Mean pitch of stay tubes in nests ✓

If comprising shell, Dia. as per rule {front... back...} ✓ Pitch in outer vertical rows {front... back...} ✓ Dia. of tube holes FRONT {stay... plain...} ✓ BACK {stay... plain...} ✓

Is each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules {front... back...} ✓

Girders to combustion chamber tops: Material ✓ Tensile strength ✓

Depth and thickness of girder at centre ✓ Length as per rule ✓

Distance apart ✓ No. and pitch of stays in each ✓ Working pressure by rule ✓

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Crown stays: Material Tensile strength _____ Diameter { at body of stay, _____ or over threads, _____ }
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material *Steel* Tensile strength *26/30 ton* Diameter { at turned off part, _____ or over threads, *1"* } No. of threads per inch *8*
 Area supported by each stay Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material External diameter { plain, _____ stay, _____ } Thickness { _____ }
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____
Hand down 4 1/2" x 3" Compensation rings 2 3/8" wide x 3/8" 6 x 4 rivets

Manhole Compensation: Size of opening in shell plate *16 x 12* Section of compensating ring *12" x 3"* No. of rivets and diameter _____
 of rivet holes *4 2" & 3 4"* Outer row rivet pitch at ends *3"* Depth of flange if manhole flanged

Uptake: External diameter *11"* Thickness of uptake plate *1/2"*

Cross Tubes: No. *4* External diameters { *9"* } Thickness of plates *3/8"*

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with

The foregoing is a correct description,
Walter H. Colman Manufacturer.
Walter H. Colman Surveyor

Dates of Survey { During progress of work in shops - *1924: Nov 27 Dec 5-15-22* } Is the approved plan of boiler forwarded herewith (If not state date of approval.) *With London Report No 88441 also under for plate.*
 { During erection on board vessel - *1925: June 10, Aug 28, Oct 1.* } Total No. of visits *4 (in shops) 3 (on board)*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This boiler has been built under special survey in accordance with the rule requirements and the approved plan. The materials and workmanship are good and the boiler was found sound and tight under hydraulic test. The boiler is being forwarded to Jøttenburg & is intended for a classed vessel.
This donkey boiler has been fitted on board this vessel under my inspection and to my satisfaction.

Survey Fee ... £ *44* : *4* : _____ } When applied for, *28 DEC 1924*
 Travelling Expenses (if any) £ *3* : *10* : _____ } When received, *23.2.25*
W. J. Stoddart Surveyor

Committee's Minute _____
 Assigned *See Got. J.C. 6212*

TUES. 13 OCT 1925

