

REPORT ON BOILERS.

No. 5918

18 JAN 1937

Received at London Office

Date of writing Report 28th Dec 1936 When handed in at Local Office 28-12-36 Port of YOKOHAMA

No. in Survey held at Yokio Date, First Survey 15th February Last Survey 15th December 1936.
Reg. Book (Number of Visits 13.) Gross 792 Tons Net

on the Property of 120 TON DIESEL ELECTRIC FLOATING CRANE.

CRANE: Yokio By whom built Ishikawajima S.B. & E. Co. Ltd. 439
Built at PONTON: Yokohama Asano S. B. Co. Ltd. Yard No. 333 When built 1936
GENERATOR Engine made at Yokio By whom made Ikegai Iron Works, Ltd. Engine No. 9408 When made 1936
Boilers made at Yokio By whom made Ishikawajima S.B. & E. Works, Ltd. Boiler No. 439 When made 1936.
Owners Union of Soviet Socialist Republic (U.S.S.R.) Port belonging to Vladivostok.

VERTICAL DONKEY BOILER.

Made at Yokio By whom made Ishikawajima S. B. & E. Works Boiler No. 439 When made 1936 Where fixed 1936

Manufacturers of Steel Nippon Seitetsu K. K. Yawata, Japan

Total Heating Surface of Boiler 11.4 M². 123# Is forced draught fitted no Coal or Oil fired Yes.

No. and Description of Boilers One Cochran Type Vertical Boiler Working pressure 7 kgs/cm².

Tested by hydraulic pressure to 14 kgs/cm² Date of test 10/8/36 No. of Certificate 45

Area of Firegrate in each Boiler 865 M² No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler { per rule 332 cm² as fitted 3927 cm² Pressure to which they are adjusted 100 lbs Are they fitted with easing gear Yes.

State whether steam from main boilers can enter the donkey boiler Is oil fuel carried in the double bottom under boiler Smallest distance between boiler or uptake and bunkers or woodwork

Is the base of the boiler insulated no Largest internal dia. of boiler 1220 mm Height 2740 mm

Shell plates: Material Steel Tensile strength 28-35 tons Thickness 10 mm

Are the shell plates welded or flanged no Description of riveting: circ. seams { end S.R.LAP inter. long. seams D.R.LAP

Dia. of rivet holes in { circ. seams 30 mm long. seams 30 mm Pitch of rivets { 51 65 Percentage of strength of circ. seams { plate 61% rivets 50.8% of Longitudinal joint { plate 69% rivets 79% combined.

Working pressure of shell by rules 10.3 kgs/cm² or 147 lbs. Thickness of butt straps { outer inner

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

Tensile strength 28-35 tons Thickness 10 mm Radius 610 mm Working pressure by rules 11.9 kgs/cm²

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

Thickness 12 mm External diameter { top 1140 bottom Length as per rule Working pressure by rules 13.3 kgs/cm²

Pitch of support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Diameter of stays over thread Radius of spherical or dished furnace crown 520 mm Working pressure by rule 13.3 kgs/cm²

Thickness of Ogee Ring Diameter as per rule 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 Steel back Tensile strength { 26 tons 30 Thickness { 15 mm 15 mm Mean pitch of stay tubes in nests 170 mm x 150 mm

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

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 16.6 kgs/cm² back

Girders to combustion chamber tops: Material Tensile strength Length as per rule

Depth and thickness of girder at centre Working pressure by rule

Distance apart No. and pitch of stays in each



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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 Tensile strength Diameter { at turned off part, or over threads. } No. of threads per inch
 Area supported by each stay Working pressure by rules Are the stays drilled at the outer ends

Tubes: Material Steel External diameter { plain 51 m/m. 2 1/2" or stay 2" } Thickness { 11 h.s.g. or 1/4" x 5/16" }
 No. of threads per inch 10 Pitch of tubes 85 x 75 m/m Working pressure by rules 155 lbs.

Manhole Compensation: Size of opening in shell plate 400 x 300 m/m Section of compensating ring 100 x 12 m/m No. of rivets and diameter of rivet holes 40 @ 1.9 m/m Outer row rivet pitch at ends 80 m/m Depth of flange if manhole flanged

Uptake: External diameter 240 m/m Thickness of uptake plate 10 m/m

Cross Tubes: No. External diameters Thickness of plates

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

The foregoing is a correct description,

J. Pawar Manufacturer.

Dates of Survey During progress of work in shops - 15/2, 1/6, 12/6, 18/6, 23/6, 10/7, 22/7, 10/8, 1/9/36 the approved plan of boiler forwarded herewith Note
 while building During erection on board vessel - 9/9, 25/9, 30/9, 15/12/36 (If not state date of approval.)
 Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey in accordance with the Rules + Approval plan. Materials and workmanship are good.

This boiler has been securely fitted onboard and has been examined under steam and its safety valves adjusted to 7 kgs/cm². Accumulation tests carried out with satisfactory results.

This boiler is eligible in my opinion to be classed in the Register Book.

Survey Fee £ 6 : 6 :) When applied for, 18-12-36
 Travelling Expenses (if any) £ Changed on :) When received, 3-5 1937 3/5
Engine report (Im. 2-29)

Committee's Minute FRI 29 JAN 1937

Assigned See other F.E. rpt

