

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 YOKOHAMANo. in Survey held at Yokio Date, First Survey 15th February Last Survey 15th December 1936.
Reg. Book (Number of Visits 13.) Gross 792

on the Property of 120 TON DIESEL ELECTRIC FLOATING CRANE. Tons Net

CRANE: Yokio
Built at PONTON: Yokohama
By whom built Ishikawajima S.B. & Co. Ltd. Yard No. 439 When built 1936
By whom made Asano S. B. Co. Ltd.

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. & Co. 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. & Co. Ltd. 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 ft². 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 8.65 M² No. and Description of safety valves to each boiler 2 Spring loaded ✓

Area of each set of valves per boiler { per rule 33.2 cm² ✓ as fitted 39.27 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 ✓ Smallest distance between boiler or uptake and bunkers

or woodwork ✓ Is oil fuel carried in the double bottom under boiler ✓ Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated no ✓ Largest internal dia. of boiler 1230 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 ✓ 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 1140 ✓ 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 { D ✓ a ✓ 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 ✓ back ✓ 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 ✓

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

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

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" Thickness ☒ 11 h.s.g. 1/4" & 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 C 19 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,

S. J. Parvatha 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 is 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 & Approved 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 : 0 When applied for, 18-12-36
 Travelling Expenses (if any) * Charged 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