

REPORT ON BOILERS.

No. 4588

Received at London Office 23 OCT 1930

Date of writing Report 22nd Sept 1930 When handed in at Local Office 22/9/1930 Port of YOKOHAMA.

No. in Survey held at Yokohama Date, First Survey 4th March 1930 Last Survey 7th Sept 1930
Reg. Book (Number of Visits 15) Gross 8601 Tons Net 5195

on the T. S. C. M. V. "KWANTO MARU"
Built at Yokohama By whom built Yokohama Dock Co. Ltd Yard No. 179 When built 1930
Engines made at Augsburg By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. 330340 When made 1929/30
Boilers made at Yokohama By whom made Yokohama Dock Co. Ltd Boiler No. 179 When made 1930
Owner: Kishimoto Kisen Kaisha Port belonging to Suifu.

VERTICAL DONKEY BOILER.

Made at Yokohama By whom made Yokohama Dock Co. Ltd Boiler No. 179 When made 1930 Where fixed Yokohama.

Manufacturers of Steel Vereinigte Stahlwerke A.G. Stahl- & Walzwerke Thyssen, Mulheim-Ruhr, Germany.

Total Heating Surface of Boiler 175 sq ft Is forced draught fitted Coal or Oil fired Oil. Working pressure 100 lbs.

No. and Description of Boilers One Vertical Donkey Boiler Tested by hydraulic pressure to 200 lbs/sq in Date of test 11th June 1930 No. of Certificate 28.

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Spring loaded.
Area of each set of valves per boiler { per rule 3.57" as fitted 6.27" 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 Largest internal dia. of boiler 4'-6" Height 11'-6"

Shell plates: Material Steel Tensile strength 28-32 tons Thickness 7/16"

Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end S.R. LAP inter D.R. LAP long seams D.R. LAP

Dia. of rivet holes in { circ. seams 15/16" long seams 13/16" Pitch of rivets { 2 1/8" 2 3/4" Percentage of strength of circ. seams { plate 55.8% rivets 60.9% of Longitudinal joint { plate 10.4% rivets 60.3% combined

Working pressure of shell by rules 127.3 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 Thickness 5/8" Radius 4'-6" Working pressure by rules 138 lbs.

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

Thickness 9/16" External diameter { top 44" bottom 47" Length as per rule 3'-7 1/4" Working pressure by rules 141 lbs.

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 Working pressure by rule

Thickness of Ogee Ring Diameter as per rule { D d Working pressure by rule

Combustion Chamber: Material steel Tensile strength 26-30 Thickness of top plate 9/16"
Radius if dished 2'-8" Working pressure by rule 143.5 lbs Thickness of back plate 9/16" Diameter if circular 3'-4"

Length as per rule 25.0625" Pitch of stays 8 1/4" x 10" Are stays fitted with nuts or riveted over nuts.
Diameter of stays over thread 1 1/2" Working pressure of back plate by rules 129 lbs

Tube Plates: Material { front steel back steel Tensile strength { 26/30 Thickness { 1/2" 9/16" Mean pitch of stay tubes in nests 7 1/2" x 10 1/2"

If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { 7" 7" Dia. of tube holes FRONT { stay 2 3/4" plain 2 5/8" BACK { stay 2 1/2" plain 2 1/2"

Is each alternate tube in outer vertical rows a stay tube Yes Working pressure by rules { front 130.1 back 135 lbs

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 steel Tensile strength 26-30 Diameter at turned off part, or over threads. 1 1/2" No. of threads per inch 9
 Area supported by each stay 85 sq" Working pressure by rules 147.6 lb Are the stays drilled at the outer ends
Tubes: Material steel External diameter plain 3 1/2" stay 3 1/2" Thickness 1/4" Working pressure by rules 175 lb
 No. of threads per inch 9 Pitch of tubes 3 1/2" x 3 1/2" Working pressure by rules 175 lb
Manhole Compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 4 3/4" x 7/8" No. of rivets and diameter
 of rivet holes 36 @ 2 9/32" Outer row rivet pitch at ends Depth of flange if manhole flanged
Uptake: External diameter Thickness of uptake plate
Cross Tubes: No. External diameters Thickness of plates

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

The foregoing is a correct description.

J. Truchings Manufacturer.

Dates of Survey During progress of work in shops - March 7, 12, 17, 18, May 1, 3, 5, 7, 9, 26, 31, June 11, 1930. Is the approved plan of boiler forwarded herewith Yes 25/10/29.
 while building During erection on board vessel - Apr 24, 27, Aug 22nd, Sept 12, 1930. Total No. of visits 15.

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

This boiler has been built under special survey in accordance with the Rules and approved plan. Materials & workmanship good. This boiler has been securely fitted onboard the vessel and examined under steam. Accumulation trials carried out and no rise in pressure noted.

Survey Fee ... YEN # 63.000 :
 Travelling Expenses (if any) £ : :

When applied for, 26/9/1930
 When received, 29.10.1930

J. Micholas
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned

FRI. 31 OCT 1930

See F. E. Rpt.



Lloyd's Register
 Foundation