

## REPORT ON BOILERS.

No. 12970

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Date of writing Report 28/3/1956. When handed in at Local Office 28/3/1956. Port of Hong Kong.

No. in Reg. Book. 30788 Survey held at Hong Kong Date, First Survey 3rd January, Last Survey 24th March, 1956.

on the Steel Screw Steamer "SHUN FUNG" ex "Tung Song" (Number of Visits 5) Tons Gross 549 Net 245

Master. Built at Hong Kong By whom built The Taikoo Dockyard & Eng. Co. of H.K. Ltd. Yard No. 234 When built 1928

Engines made at Hong Kong By whom made The Taikoo Dockyard & Eng. Co. of H.K. Ltd. Engine No. 183 When made 1928

Boilers made at Hong Kong By whom made The Taikoo Dockyard & Eng. Co. of H.K. Ltd. Boiler No. - When made 1928

Nominal Horse Power 122 Owners Cheong Kee Navigation Co., Ltd. Port belonging to Hong Kong.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Boiler Built to Board of Trade Requirements (Letter for Record)

Total Heating Surface of Boilers 1368 sq. ft. Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers One, Scotch. Working Pressure 180 lb. sq. in.

Tested by hydraulic pressure to 225 lbs. Date of test 28-2-56 No. of Certificate - Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler Two enclosed spring.

Area of each set of valves per boiler per Rule 8.77 as fitted 9.82 sq. in. Pressure to which they are adjusted 180 lbs. Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler - Satisfactory accumulation of pressure tests witnessed.

Smallest distance between boilers or uptakes and bunkers ~~18"~~ 18" Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 10" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 11'-6" Length 10'-1 1/2" Shell plates: Material Steel Tensile strength 28/32 tons

Thickness 31/32 Are the shell plates welded or flanged No Description of riveting: circ. seams end Double inter. -

Long. seams Treble Diameter of rivet holes in circ. seams 1" long. seams 1" Pitch of rivets Inner 3 1/2, outer 7

Percentage of strength of circ. end seams plate 64.95 rivets 59.94 Percentage of strength of circ. intermediate seam plate - rivets -

Percentage of strength of longitudinal joint plate 85.72 rivets 89 Working pressure of shell by Rules 190 lbs. per sq. in. combined 89.22

Thickness of butt straps outer 3/4" inner 7/8" No. and Description of Furnaces in each Boiler Three, Deighton

Material Steel Tensile strength 26/30 tons Smallest outside diameter 2'-7-3/8"

Length of plain part top - bottom - Thickness of plates crown 7/16 bottom 7/16 Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 199 lbs. per sq. in.

End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 1" Pitch of stays 16" x 15"

How are stays secured Double nuts & washers Working pressure by Rules 191.8 lbs. per sq. in.

Tube plates: Material front Steel 26/30 tons Thickness 13/16 back Steel 26/30 tons Thickness 11/16

Lean pitch of stay tubes in nests 11-1/16 - 7/4 Pitch across wide water spaces 14" Working pressure front 181 back 200

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder

at centre 8 x 2 x 11/16 Length as per Rule 29.3" 2'-4" Distance apart 9" No. and pitch of stays

at each 3 x 7/4 Working pressure by Rules 200 lbs. per sq. in. Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 25/32

Pitch of stays to ditto: Sides 9" - 7-11/16 8-13/16 - 8 Top 9 - 7/4 Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 191 Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 13/16 Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 13/16

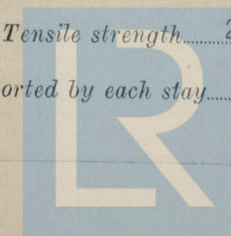
Pitch of stays at wide water space 14-3/16 - 8 Are stays fitted with nuts or riveted over Nuts

Working pressure 202.6 Main stays: Material Steel Tensile strength 28/32

Diameter At body of stay 2 1/2 No. of threads per inch 6 Area supported by each stay 16 x 15 = 240 sq. in. Over threads 2 1/2

Working pressure by Rules 184.7 Screw stays: Material Steel Tensile strength 26/30 tons

Diameter At turned off part 1-5/8 No. of threads per inch 9 Area supported by each stay 70.5 Over threads 1-5/8



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Working pressure by Rules. 215 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads. 1-3/4  
No. of threads per inch 9 Area supported by each stay 92 sq.in. Working pressure by Rules. 215  
Tubes: Material Iron External diameter Plain 2 1/2 Stay 2 1/2 Thickness 9 L.S.G. 9 No. of threads per inch 9  
Pitch of tubes 7 1/4 x 11-1/16 12-17/32 x 7 1/4 Working pressure by Rules 210 187 Manhole compensation: Size of opening in shell plate 16" x 12" Section of compensating ring 34 1/4" x 32 1/4" x 1" No. of rivets and diameter of rivet holes 48" - 1-1/32"  
Outer row rivet pitch at ends 7.281" Depth of flange if manhole flanged 3-5/8" Steam Dome: Material -  
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 - Working pressure by Rules - Thickness of crown - No. and diameter of stays -  
Inner radius of crown - Working pressure by Rules -  
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 - 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 - Is a safety valve fitted to every part of the superheater which can be shut off from the boiler -  
Area of each safety valve - Are the safety valves fitted with easing gear - Working pressure as per Rules - 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 -

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - Are the ~~approved~~ plans of boiler ~~and superheater~~ forwarded herewith. Yes (If not state date of approval.)  
while building { During erection on board vessel - - - Total No. of visits.

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

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

This boiler was built by the Taikoo Dockyard & Engineering Co. of Hong Kong Ltd. under survey by the local Government Surveyors. The workmanship is good and in the opinion of the undersigned, this boiler is eligible to be classed as contemplated.

Charged on Rpt. 9  
Survey Fee ... £ : : When applied for, 19....  
Travelling Expenses (if any) £ : : When received, 19....

James A. Anderson  
James A. Anderson  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute. FRIDAY 1 JUN 1956

Assigned Su Rpt. 4



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