

## REPORT ON BOILERS.

No. 6272

22 MAY 1928

Received at London Office

Date of writing Report **Apr. 18th. 1928.** When handed in at Local Office **Apr. 18th. 1928.** Port of **Hong Kong**  
 No. in Survey held at **Hong Kong** Date, First Survey **Mar. 22nd. 1928** Last Survey **Apr. 17th. 1928.**  
 Name of vessel **Single Screw Tug "CHIRM CHOM PHOL"** (Number of Visits **6**) Gross Tonnage **97.24**  
 Net Tonnage **27.58**  
 Built at **Hong Kong** By whom built **W. S. Bailey & Co. Ltd.** Yard No. **243** When built **1928**  
 Engines made at **Stockton** By whom made **Harker & Sons** Engine No. **266** When made **1927**  
 Boilers made at **Stockton** By whom made **Riley Bros.** Boiler No. **5757** When made **1927**  
 Indicated Horse Power **41.2** Owners **The Sriracha Co. Ltd.** Port belonging to **Bangkok, Siam.**

MULTITUBULAR BOILERS—MAIN, ~~XXXXXXXXXXXXXXXXXXXX~~

Manufacturers of Steel **David Colville & Sons** (Letter for Record **S**)  
 Total Heating Surface of Boilers **870** Is forced draught fitted **No** Coal or Oil fired **Coal**  
 No. and Description of Boilers **One S. E. Marine** Working Pressure **180 lbs.**  
 Tested by hydraulic pressure to **320 lbs.** Date of test **26-9-27** No. of Certificate **6579** Can each boiler be worked separately **-**  
 Area of Firegrate in each Boiler **34 1/2** No. and Description of safety valves to each boiler **2 at 2 1/2" spring loaded**  
 Area of each set of valves per boiler {per Rule **5.56** as fitted **9.8** 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 **-**  
 Smallest distance between boilers or stacks and bunkers **7"** Is oil fuel carried in the double bottom under boilers **No**  
 Smallest distance between shell of boiler and tank top plating **Open floors** Is the bottom of the boiler insulated **No**  
 Largest internal dia. of boilers **10'-0"** Length **9'-6"** Shell plates: Material **Steel** Tensile strength **26/32**  
 Thickness **27/32"** Are the shell plates welded or flanged **No** Description of riveting: circ. seams {end **D.R.** inter. **-**  
 Rivet seams **T.R.D.B.S.** Diameter of rivet holes in {circ. seams **1 1/16"** long. seams **15/16"** Pitch of rivets { **3 1/16" x 6 1/8"** **6 5/8"**  
 Percentage of strength of circ. end seams {plate **65.3** rivets **42.5** Percentage of strength of circ. intermediate seam {plate **-** rivets **-**  
 Percentage of strength of longitudinal joint {plate **85.8** rivets **95.1** combined **90.7** Working pressure of shell by Rules **182 lbs.**  
 Thickness of butt straps {outer **21/32"** inner **25/32"** No. and Description of Furnaces in each Boiler **2 plain**  
 Material **Steel** Tensile strength **26/30** Smallest outside diameter **3'-3"**  
 Length of plain part {top **5'-10 1/2"** bottom **6'-4"** Thickness of plates {crown **3/4"** bottom **3/4"** Description of longitudinal joint **Weld**  
 Dimensions of stiffening rings on furnace or c.c. bottom **-** Working pressure of furnace by Rules **192 lbs.**  
 End plates in steam space: Material **Steel** Tensile strength **26/30** Thickness **25/32"** Pitch of stays **14" x 13"**  
 How are stays secured **D. N. & W.** Working pressure by Rules **183 lbs.**  
 Tube plates: Material {front **Steel** back **Steel** Tensile strength { **26/30** Thickness { **25/32"** **23/32"**  
 Lean pitch of stay tubes in nests **10"** Pitch across wide water spaces **13"** Working pressure {front **180 lbs.** back **183 lbs.**  
 Girders to combustion chamber tops: Material **Steel** Tensile strength **26/32** Depth and thickness of girder  
 At centre **6 1/2 x 5/8 (double)** Length as per Rule **2'-3"** Distance apart **7"** No. and pitch of stays  
 At each **2 - 8" x 7"** Working pressure by Rules **188 lbs.** Combustion chamber plates: Material **Steel**  
 Tensile strength **26/30** Thickness: Sides **5/8"** Back **5/8"** Top **5/8"** Bottom **1"**  
 Pitch of stays to ditto: Sides **9" x 8"** Back **9" x 8 1/2"** Top **8" x 7"** Are stays fitted with nuts or riveted over **Nuts**  
 Working pressure by Rules **181 lbs.** Front plate at bottom: Material **Steel** Tensile strength **26/30**  
 Thickness **25/32"** Lower back plate: Material **Steel** Tensile strength **26/30** Thickness **25/32"**  
 Pitch of stays at wide water space **13" x 9"** Are stays fitted with nuts or riveted over **Nuts**  
 Working Pressure **206 lbs.** Main stays: Material **Steel** Tensile strength **26/32**  
 Diameter {At body of stay, **2 1/2"** No. of threads per inch **6** Area supported by each stay **178**  
 Over threads **2 1/2"** Working pressure by Rules **182 lbs.** Screw stays: Material **Steel** Tensile strength **26/30**  
 Diameter {At turned off part, **1 1/2"** No. of threads per inch **9** Area supported by each stay **70**  
 Over threads **1 1/2"**

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Working pressure by Rules **180 lbs.** Are the stays drilled at the outer ends **No** Margin stays: Diameter { At turned off part, **1 1/2"** Over threads **1 1/2"**

No. of threads per inch **9** Area supported by each stay **93.2** Working pressure by Rules **194 lbs.**

Tubes: Material **Iron** External diameter { Plain **3" to 3 1/16"** Stay **3" to 3 1/4"** Thickness **9 w.g.** No. of threads per inch **9**

Pitch of tubes **4" x 4"** Working pressure by Rules **2,100. 2.277** Manhole compensation: Size of opening

shell plate **20" x 16"** Section of compensating ring **3" x 1"** No. of rivets and diameter of rivet holes **40 - 3 1/16"**

Outer row rivet pitch at ends **7 1/2"** Depth of flange if manhole flanged **3"** 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

stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and

of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes 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

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

Rules Pressure to which the safety valves are adjusted Hydraulic test pressu

tubes castings and after assembly in place Are drain cocks or valves fi

to free the superheater from water where necessary

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

The foregoing is a correct description,  
For W. S. BAILEY & Co., Ltd. Manufacturer

Dates of Survey { During progress of work in shops - **1927 Aug. 5, 11, 26, Sept. 6, 3, 15, 26. Stockton.** Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - **1928 Mar. 22, 28, Apr. 3, 11, 13 & 17. Total No. of visits Stockton 7. Hong Kong 6.**

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

The materials have been tested by the Surveyors to this Society and this boiler has been built under special survey at Stockton in accordance with the Rules and approved plan ( See Middlesbrough Report No.13054).

The boiler has now been installed on board this vessel in accordance with the Rules and the workmanship is good.

Identification mark on boiler:-

No. 6579  
LLOYD'S TEST  
320 lbs.  
W.P. 180 lbs.  
26-9-27  
P.T.B.

Survey Fee **See Machinery** When applied for, **102**

Travelling Expenses (if any) **Report.** When received, **102**

*J. Morrison*  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **FRI. 25 MAY 1928**

Assigned *See Report attached*

TUE. 12 MAR 1929  
TUE. 15 OCT 1929  
FRI. 15 NOV 1929