

# REPORT ON BOILERS.

21st No. 2363

Received at London Office

Date of writing Report 24<sup>th</sup> May 1926 When handed in at Local Office

19 Port of Shanghai

No. in Survey held at Shanghai

Date, First Survey 25<sup>th</sup> May 1925 Last Survey 8<sup>th</sup> May 1926

Reg. Book.

(Number of Visits 8) Gross 898.62

on the Steel Twin Screw M/V "HAI-KWANG"

Tons Net 500.91

Master

Built at Shanghai

By whom built Hsu Eng &amp; S.B. H.K.

When built 1926

Engines made at Lincoln

By whom made Ruston &amp; Hornsby

when made 1919

Boilers made at Shanghai

By whom made Hsu Eng &amp; S.B. H.K.

when made 1925

Registered Horse Power

Owners Anglo Saxon Petroleum Co Port belonging to Shanghai

## MULTITUBULAR BOILERS—~~MAIN, AUXILIARY OR~~ DONKEY.—Manufacturers of Steel Hallside & S. Durham & S.C.

Letter for record S Total Heating Surface of Boilers 6844<sup>sq</sup> Is forced draft fitted no No. and Description of

Boilers One cylindrical 15B Working Pressure 160 lb. Tested by hydraulic pressure to 290 lb. Date of test 6-10-25

No. of Certificate 33 Can each boiler be worked separately Area of fire grate in each boiler 28.5<sup>sq</sup> No. and Description ofsafety valves to each boiler 2—Spring loaded. Area of each valve 3.14<sup>sq</sup> Pressure to which they are adjusted 160 lb.

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 uptakes and bunkers or woodwork 15" Mean dia. of boilers 9'-3" Length 9'-0"

Material of shell plates Steel Thickness 3/4" Range of tensile strength 28-32 lb. Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams Double long. seams Triple Diameter of rivet holes in long. seams 13/16" Pitch of rivets 2 1/2"

Gap of plates or width of butt straps 12" Per centages of strength of longitudinal joint rivets 86.4 Working pressure of shell by

rules 161.33 lb. Size of manhole in shell 16" x 12" Size of compensating ring 32" x 30" x 3/4" No. and Description of Furnaces in each

boiler 2 Morrison Material Steel Outside diameter 3'-1 1/4" Length of plain part top Thickness of plates crown 32

Description of longitudinal joint No. of strengthening rings Working pressure of furnace by the rules 170 lb. Combustion chamber

plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 1 1/8" Pitch of stays to ditto: Sides 8 x 7 1/2" Back 7 3/4 x 7 1/4"

Top 7 1/2 x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 180 lb. Material of stays Steel Diameter at

smallest part 1-162 Area supported by each stay 60<sup>sq</sup> Working pressure by rules 241 lb. End plates in steam space: Material Steel Thickness 3/4"

Pitch of stays 13 x 13 How are stays secured Double nuts Working pressure by rules 174 lb. Material of stays Steel Diameter at smallest part 2-05"

Area supported by each stay 169<sup>sq</sup> Working pressure by rules 205 lb. Material of Front plates at bottom Steel Thickness 5/8" Material of

lower back plate Steel Thickness 1/2" Greatest pitch of stays 7 3/4 x 12" Working pressure of plate by rules 173.5 lb. Diameter of tubes 3"

Pitch of tubes 4 1/4 x 4" Material of tube plates Steel Thickness: Front 1/2" Back 9/16" Mean pitch of stays 8 1/2 x 8" Pitch across wide

water spaces 13" Working pressures by rules 166.5 Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 7" x 1 1/4" Length as per rule 2-17 1/8" Distance apart 7" Number and pitch of Stays in each 2- 7 1/2"

Working pressure by rules 218.5 Superheater or Steam chest: how connected to boiler Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

## VERTICAL DONKEY BOILER—No. Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

Tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can

enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile

strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Gap of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown

plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,

Manufacturer.

Dates During progress of work in shops 1925 May 15<sup>th</sup> May 8<sup>th</sup> 28 Sept 23<sup>rd</sup> Oct 6<sup>th</sup>During erection on board vessel 1926 Jan 6<sup>th</sup> Feb 24<sup>th</sup> May 8<sup>th</sup>

Total No. of visits 8

Is the approved plan of main boiler for

" " " donkey "

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W177-0157



GENERAL REMARKS (State quality of workmanship, opinions as to class, &c. *This boiler has been built under Special Survey in accordance with the approved plans and the Rules, the material & workmanship are good. Safety Valve adjusted under steam to 160 lbs.*

Certificate (if required) to be sent to

The amount of Entry Fee... £ : : When applied for,  
 Special ... £ *See Machinery* 19  
 Donkey Boiler Fee ... £ *Report.* When received,  
 Travelling Expenses (if any) £ : : 19

Committee's Minute

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FRI. 6 AUG 1926

TUES. 21 SEP 1926

*See attached  
 141 Ski  
 2363*

*M. Boylan*  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.



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