

## REPORT ON BOILERS.

 Phil No. 5380  
 No. 26884  
 22 JAN 1927

Received at London Office

Date of writing Report *2nd Nov 1926* When handed in at Local Office *2<sup>nd</sup> Nov 1926* Port of *New York & Philadelphia*  
 No. in Survey held at *Schenectady, N.Y.* Date, First Survey *18 Oct.* Last Survey *23 Oct 1926*  
 Reg. Book. on the *STEEL STERNWHEELER "CASCAJALES"* (Number of Visits *10*) Gross *444* Tons Net *381*  
 Muster ☒ Built at *Chester Pa* By whom built *Sam S. B. Co. (Hull #99)* When built *1926*  
 Engines made at *Kearny N.J.* By whom made *Federal S. B. Co.* When made *1926*  
 Boilers made at *Schenectady N.Y.* By whom made *American Locomotive Co.* When made *1926*  
 Registered Horse Power *285* Owners *Imperial Oil Co.* Port belonging to *Barranguilla, Colombia*

**LOCOMOTIVE**  
**TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel *Lukens Iron & Steel Co*  
 Letter for record *S* Total Heating Surface of Boilers *5382 sq ft* Is forced draft fitted *no* No. and Description of  
 Boilers *3 Locomotive type* Working Pressure *225 lbs* Tested by hydraulic pressure to *388 lbs* Date of test *22/10/26*  
 No. of Certificate *502* Can each boiler be worked separately *yes* Area of fire grate in each boiler *Oil fired* No. and Description of  
 Safety valves to each boiler *Two, spring loaded* Area of each valve *7.068 sq in* Pressure to which they are adjusted *225 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 uptakes and bunkers or woodwork *5* Mean dia. of boilers *6'-4 1/16"* Length *23'-11 7/16" overall*  
 Material of shell plates *steel* Thickness *15" 31"* Range of tensile strength *55/65000 lbs* Are the shell plates welded or flanged *no*  
 Description of riveting: cir. seams *double lap* long. seams *T.R. D.B.S.* Diameter of rivet holes in long. seams *1 5/16"* Pitch of rivets *8.95"*  
 Width of butt straps *Inside 21 1/4"* Per centages of strength of longitudinal joint *110* Working pressure of shell by  
 Rules *225 lbs* Size of manhole in shell *18" dia* Size of compensating ring *18" x 3/4"* No. and Description of Furnaces in each  
 Boiler *Locomotive type* Material *Steel* Outside diameter *SEE PLAN* Length of plain part *top AS PER* Thickness of plates *crown 7/16"*  
 Description of longitudinal joint *—* No. of strengthening rings *—* Working pressure of furnace by the rules *257 lbs* Combustion chamber  
 Details: Material *—* Thickness: Sides *—* Back *—* Top *—* Bottom *—* Pitch of stays to ditto: Sides *—* Back *—*  
 If stays are fitted with nuts or riveted heads *—* Working pressure by rules *—* Material of stays *—* Area at  
 Smallest part *—* Area supported by each stay *—* Working pressure by rules *—* *BACK* plates in steam space: Material *steel* Thickness *9/16"*  
 How are stays secured *PLAN* Working pressure by rules *400 lbs* Material of stays *steel* *THROAT* at smallest part *1 1/4"*  
 Area supported by each stay *54 sq in* Working pressure by rules *225 lbs* Material of *FRONT* plates at bottom *steel* Thickness *3/4"* Material of  
 Cover back plate *steel* Thickness *9/16"* Greatest pitch of stays *PLAN* Working pressure of plate by rules *225 lbs* Diameter of tubes *2 1/2"*  
 Pitch of tubes *3 1/2"* Material of tube plates *steel* Thickness: Front *9/16"* Back *9/16"* Mean pitch of stays *ALL TUBES BEADED AT BOTH ENDS* Pitch across wide  
 Cover spaces *—* Working pressures by rules *—* Girders to Chamber tops: Material *—* Depth and thickness of  
 Cover at centre *—* Length as per rule *—* Distance apart *—* Number and pitch of Stays in each *—*  
 Working pressure by rules *—* Steam dome: description of joint to shell *Double riveted* % of strength of joint *COMPENSATION RING FITTED*  
 Diameter *28 1/4"* Thickness of shell plates *1/2"* Material *steel* Description of longitudinal joint *joint* Diam. of rivet holes *—*  
 Pitch of rivets *—* Working pressure of shell by rules *225 lbs* Crown plates *steel* Thickness *1 1/4"* How stayed *disked*  
**SUPERHEATER.** Type *none* Date of Approval of Plan *—* Tested by Hydraulic Pressure to *—*  
 Date of Test *—* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *—*  
 Diameter of Safety Valve *—* Pressure to which each is adjusted *—* Is Easing Gear fitted *—*

The foregoing is a correct description,  
 AMERICAN LOCOMOTIVE CO  
 PER R. B. McCall. Manufacturer.

During progress of work in shops -- *18, 22 & 23 Oct 1926.*  
 During erection on board vessel -- *Nov. 9, 11, 17, 19, 22, 29. Dec. 3.*

Is the approved plan of boiler forwarded herewith *yes*  
 Total No. of visits *10*

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *These Locomotive Boilers have been*  
*built under Special Survey in accordance with the Rules & approved plan & the workmanship &*  
*material are good. They have been forwarded to Chester, Pa. to be fitted on board the vessel*  
*when this has been done in accordance with the Rules, they will, in my opinion, be*  
*eligible to receive notation + LMC with date as recommended by Philadelphia surveyors*  
 Survey Fee *45. to be credited to N.Y.* When applied for, *4th Jan. 1927.*  
 Travelling Expenses (if any) £ *\$59.50.* When received, *26/2/1927 RBB*

NEW YORK JAN 12 1927

Committee's Minute

Signed *See N.Y.K. Rpt. 27101-Phil. 5380*
 John S. Heck  
 Engineer Surveyor to Lloyd's Register of Shipping.

 Lloyd's Register  
 Foundation

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