

THE BALDWIN LOCOMOTIVE WORKS

Specification Card for Locomotive No. 15

Owned by ONEIDA WESTERN RAILROAD COMPANY
 Operated by ONEIDA WESTERN RAILROAD COMPANY

Builder, The Baldwin Locomotive Works.
 Builder's No. of Boiler 43529
 When built June 1916
 Where built Philadelphia
 Type of boiler Straight Top (radial stayed)
 Material of boiler shell sheets Steel
 Material of rivets Steel
 Dome, where located On 2nd course
 Grate area in sq. ft. 29.5
 Height of lowest reading of gauge glass above crown sheet 3 1/4"
 Height of lowest gauge cock above crown sheet 3 1/4"
 Water-bar tubes, O. diam. None thickness ---
 Arch tubes, O. diam. None thickness ---
 Fire tubes, number 250
 " " O. diam. 2" length 161"
 Safety valves:
 No. 2 Size 3" Make Consolidated Style Open

Firebox stay bolts, O. diam. 1/2" spaced 4" x 4"
 Combustion chamber stay bolts, O. diam. None
 " " " spaced --- x ---
 Crown stays, O. diam., top 1" bottom 1"
 " " spaced 4" x 4"
 Crow-bar rivets, O. diam., top None bottom None
 " " " spaced --- x ---
 Water space at firebox ring sides 3 1/4"
 back 3 1/4"
 Width of water space at sides of firebox measured at center of boiler, from 5" back 6 1/2"

Shell sheets:
 Front tube 1/2" thick.
 1st course 11/16" " 62 1/2" I. diam.
 2d " 11/16" " 64" " "
 3d " None " --- " "
 Note: When courses are not cylindrical give inside diameter at each end.

Firebox:
 Thickness of sheets—
 Tube 1/2" Crown 3/4" Side 5/16"
 Door 5/16" Combustion chamber None
 Inside throat (if tube sheet is in two pieces) 1 1/2"

External firebox:
 Thickness of sheets—throat 1/2" back head 3/4"
 Roof 9/16" sides 9/16"
 Dome inside diam. 29"
 Thickness of sheet 1/2" base 1" liner 1/4"

Were you furnished with authentic records of the tests of materials used in boiler? Yes
 Records on file in the office of the Test Dept. of the Baldwin Locomotive Works show that the lowest tensile strength of the sheets in shell of this boiler is:

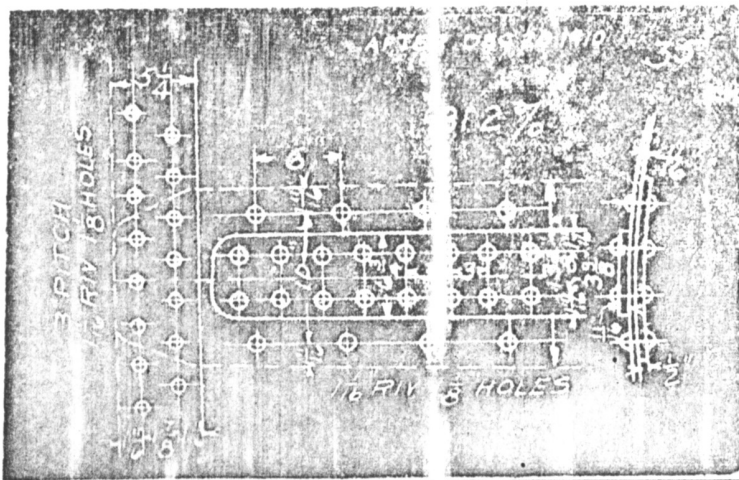
1st course 57080 pounds per sq. in.
 2d " 55820 " " "
 3d " " " "

Is boiler shell circular at all points? Yes
 If shell is flattened, state location and amount Not flattened

Are dome and other openings sufficiently reinforced? Yes

Is boiler equipped with fusible plugs? Yes

Mark indicating



Location used in shell of boiler, bottom

The maximum stresses at the allowed working pressure were found by calculation to be as follows:

Stay bolts at root of thread.....	6920	lbs. per sq. in.	Round xxxxxxx braces.....	8900	lbs. per sq. in.
Stay bolts at reduced section.....	7230	" " "	Gusset braces.....	None	" " "
Crown stays xxxxxxx at xxxxxxx			Shearing stress on rivets.....	7560	" " "
smallest section, top.....	5330	lbs. per sq. in.	Tension on net section of plate in longitudinal seam of		
xxxxxxx crown-bar rivets xxxxxxx			lowest efficiency, pounds per sq. in.....	11400	
xxxxxxx	None	lbs. per sq. in.			

Dimensions and data taken from locomotive were furnished by.....

Data upon which above calculations were made were obtained from Drawing No. 11766 and 11767

dated -- furnished by The Baldwin Locomotive Works

Amos A. Wigh
Mechanical Engineer.

STATE OF PENNSYLVANIA
COUNTY OF PHILADELPHIA ss:

Amos A. Wigh being duly sworn says that he is the officer who signed the foregoing specification, that he has satisfied himself of the correctness of the drawings and data used, and verified all of the calculations, and has examined the record of present condition of boiler dated June 16, 1916 and sworn to by inspector L.F. Stang and H. Atlas and believes that the design, construction, and condition of boiler No. 43539 renders it safe for a working pressure of 200 pounds per square inch.

Amos A. Wigh
(Name of affiant)

Subscribed and sworn to before me
this 5 day of July, 1916

MY COMMISSION EXPIRES AT THE END OF
THE NEXT SESSION OF THE STATE SENATE.

Approved:

J. F. Ashworth

Approved *Carl C. Core*
Title Asst. Chief Mech. Officer

Date B&MRR July 16, 1962

The Boston & Maine Railroad
approved for Monadnock,
Steamtown & Northern Corp.
F. Nelson Blount President.

Approved *[Signature]*
Title *President*
Date *9th 1937*
Boston Valley Railroad