

PRELIMINARY OBSERVATIONS OF COLLECTION PIECES BY THE GUEST CURATOR TEAM

Damage overviews are from exterior observations by the guest curator team and with further examination additional damage may be uncovered.

Object Information:

Common Name: Steam locomotive 2-8-0

Specific Name: B&O No. 545 "A.J. Cromwell"

Builder/Location: B&O Railroad, Mt. Clare Shops

Date: 1888

Purpose: Freight service

Brief History: Alexander Mitchell designed the first "Consolidation" 2-8-0 freight locomotive for the Lehigh Valley Railroad in 1866. Soon heavy "Consolidations" were universal on almost every railroad including the Baltimore & Ohio Railroad, which adopted its first one to its roster in 1873. Many of these "Late Victorian Workhorses" continued to work into the 1920s despite more modern designs. The No. 545 was built in 1888 under Andrew J. Cromwell, B&O Superintendent of Motive Power, and is the only surviving B&O "Consolidation" locomotive.

General Comments

The cab has been crushed from above and is severely damaged; damage to other parts of the locomotive is comparatively minor and primarily of a cosmetic nature.

Locomotive

Cab

The cab has been crushed due to the impact across the top. The right side has been displaced forward approximately 8" at the running board, and the rear wall has been pushed to the right approximately 4" at the top. Two cab rafters and the rear panel are broken, the rear wall is racked and broken, and the overhang is crushed on the left side. There are several holes in the cab roof. Primary connections between major structural components are loosened or broken. The rear doors are racked, and several panes of glass have been broken in the doors and windows. Many of the wood pieces are cracked, split, and separated in a number of locations. Some lagging around the firebox has become wet and run down the side of the wrapper sheet onto the frames. This is particularly evident on the left side.

Boiler

There is paint scuffing on the front of the steam dome. The surveyors were unable to inspect dome-top fittings (whistle, pops, valves) due to the close-fitting tarp. There is damage to the boiler jacket at the top of the first course. The center left handrail stanchion is broken.

Handrails

- There is a major bend in the handrail on the left side, just forward of the sand dome.
- On the left handrail stanchion by the bell, the stud is broken off. Others appear undamaged.

Whistle, Bell, Domes, Stack, etc.

- The whistle, bell, domes, etc. are covered in plastic and therefore unable to inspect thoroughly.

- There is a scuff on the right side of the sandbox.
- There is a scrape on the front edge of the bell and there are other minor scrapes on the bell and yoke.

Jacket, Running Boards, etc.

- The left running board is broken.
- The right running board is cracked (split) but not broken.
- There are some dents and scrapes to the jacket, especially on the left side.

Cylinders, Running Gear

- There is a major dent on the left side of the cylinder jacket.
- There is some distress to the right cylinder chest lid.

Tender

The tender appears to be unaffected except for effects of exposure and weathering and a couple of minor dents.

- The tender flair is bent a little.
- The tender water hatch hinge rod is bent. There are small divots and scuffs, and the edge is bent on the hatch lid.

Notes

The surveyors did not go under the locomotive. As a result, they were unable to closely inspect the suspension, running gear or machinery, and there was no attempt to determine the condition of rotating or reciprocating components. These parts of the locomotive do not appear on visual inspection to have been affected by the roof collapse except where noted, but further inspection by qualified personnel is required in order to reach a final conclusion in this area.