

Inspection and Technical Services

Steam Traction Engines – Pressure Testing Requirements

ITS 22-003

This purpose of this bulletin is to ensure that owners of Steam Traction Engines understand their responsibilities regarding hydrostatic pressure tests.

Steam Traction Engine — is a historical steam boiler of riveted or welded construction, including steam tractors, traction engines, and hobby steam boilers built prior to 1955, that is being preserved, restored, and maintained for demonstration, viewing, or educational purposes.

Hydrostatic Pressure Testing will be done in accordance with NBIC Part 2 S2.6.1. The owner or repair organization is responsible to supply their own testing equipment and perform the hydrostatic test. The authorized inspector shall witness the test. Calibration records for the gauges must be available for the inspector to review when requested.

Hydrostatic pressure tests are required at the following intervals:

- 1. Initial Inspection** – Prior to being placed into service, a steam traction engine shall be thoroughly inspected internally and externally and shall be subjected to an appropriate hydrostatic test based on the MAWP determined in accordance with Clause I.2 of CSA B51-19.
- 2. Interval 3** – After the initial inspection, a steam traction engine shall be subjected to an appropriate hydrostatic test, every 3 years following the initial inspection as per NBIC Part 2 Clause S2.7.3.2 a).
- 3. After Repair or Alteration** – After completing a repair or alteration, the structural integrity of the engine and the success of the repair is required to be verified by an appropriate hydrostatic test.

Reference Documents

- *The Steam and Pressure Plants Act and Regulation*
- *CSA B51 – Boiler, pressure vessel and pressure piping code*
- *NBIC Part 2 – Inspection Code*
- *ITS 20-010 - AB-534 Harmonization Requirements for Historical Boilers*