(4) An external and internal visual examination made at the time of test or retest shows the cylinder to be free from excessive corrosion, pitting, or dangerous defects.

(5) A plus sign (+) is added following the test date marking on the cylinder to indicate compliance with paragraphs (b) (2), (b)(3), and (b)(4) of this section.

(c) *Carbon monoxide.* Carbon monoxide must be offered in a DOT 3, 3A, 3AX, 3AA, 3AAX, 3AL, 3E, or 3T cylinder having a minimum service pressure of 1800 psig. The pressure in a steel cylinder may not exceed 1000 psig at 21 °C (70 °F), except that if the gas is dry and sulfur free, the cylinder may be filled to 5/6 of the cylinder's service pressure or 2000 psig, whichever is less. A DOT 3AL cylinder may be filled to its marked service pressure. A DOT 3AL cylinder is authorized only when transported by motor vehicle, rail car, or cargo-only aircraft.

(d) *Diborane and diborane mixtures.* Diborane and diborane mixed with compatible compressed gas must be offered in a DOT 3AA1800 cylinder. The maximum filling density of the diborane may not exceed 7 percent. Diborane mixed with compatible compressed gas may not have a pressure exceeding the service pressure of the cylinder if complete decomposition of the diborane occurs. Cylinder valve assemblies must be protected in accordance with § 173.301(h).

[67 FR 51646, Aug. 8, 2002]

173.302b [Reserved]

§ 173.303 Charging of cylinders with compressed gas in solution (acetylene).

(a) *Cylinder, filler and solvent requirements.* (Refer to applicable parts of Specification 8 and 8AL). Acetylene gas must be shipped in Specification 8 or 8AL (§ 178.59 or § 178.60 of this subchapter) cylinders. The cylinders shall consist of metal shells filled with a porous material, and this material must be charged with a suitable solvent. The cylinders containing the porous material and solvent, shall be tested with satisfactory results in accordance with CGA Pamphlet C–12. Representative samples of cylinders charged with acetylene shall be tested with satisfactory results in accordance with CGA Pamphlet C–12.

(1) The specific gravity of acetone solvent in acetylene cylinders must be 0.796 or over at 15.5 °C. (59.9 °F.).

(2) The amount of solvent added in the refilling operation must not cause the tare weight of the cylinder to exceed its marked tare weight. The tare weight includes the weight of the cylinder shell, porous filling, valve, safety relief devices and solvent, but without removable cap.

(b) *Filling limits.* The pressure in cylinders containing acetylene gas must not exceed 250 psig at 70 °F., and in case the cylinders are marked for a lower allowable charging pressure, at 70 °F., then that pressure must not be exceeded.

(c) *Data requirements on filler and solvent.* Cylinders containing acetylene gas must not be shipped unless they were charged by or with the consent of the owner, and by a person, firm, or company having possession of complete information as to the nature of the porous filling, the kind and quantity of solvent in the cylinders, and the meaning of such markings on the cylinders as are prescribed by the Department's regulations and specifications applying to containers for the transportation of acetylene gas.

(d) *Verification of container pressure.* (1) Each day, the pressure in a container representative of that day's compression must be checked by the charging plant after the container has cooled to a settled temperature and a record of this test kept for at least 30 days.

(e) *Prefill requirements.* Before each filling of an acetylene cylinder, the person filling the cylinder must visually inspect the outside of the cylinder in accordance with the prefill requirements contained in CGA Pamphlet C–13, Section 3.

[29 FR 18743, Dec. 29, 1964. Redesignated at 32 FR 5606, Apr. 5, 1967]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 173.303, see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.