

July 24, 2009



U.S. Department
of Transportation

East Building, PHH - 30
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 9830
(TENTH REVISION)

EXPIRATION DATE: June 30, 2013

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Worthington Cylinder Corporation
Columbus, OH
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, marking, sale and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT specification 4BA cylinder, except as specified herein, for the transportation in commerce of the materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.201, 173.202, 173.203, 173.302a(a), 173.304a(a) and (d) in that a non-DOT specification cylinder is not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Worthington Cylinder Corporation dated July 14, 2009, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Division 2.1 and Division 2.2 materials authorized in DOT 4BA cylinders	2.1 or 2.2	As appropriate	N/A
Class 3 liquids authorized in DOT 4BA cylinders	3	As appropriate	I, II or III
Division 6.1 liquids authorized in DOT 4BA cylinders	6.1	As appropriate	I, II, or III
Class 8 materials authorized in DOT 4BA cylinders	8	As appropriate	I, II or III

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification cylinder designed and fabricated in conformance with DOT 4BA specification (§§ 178.35 and 178.51) except as follows:

§ 178.35(f) *Marking.*

Applies except that the cylinders must be marked with "DOT-SP 9830" in lieu of "DOT 4BA" followed by the service pressure.

§ 178.51(b) *Steel.*

The steel used must be ASTM A 240 Type 304L, or 316L stainless steel. Chemical compositions are as follows:

Composition (%) for ASTM A240

<u>Type</u>	<u>304L</u>	<u>316L</u>
Carbon (Max.)	0.03	0.03
Manganese (Max.)	2.00	2.00
Phosphorus (Max.)	0.045	0.045
Sulphur (Max.)	0.030	0.030
Silicon (Max.)	1.00	1.00
Nickel	8.0-11.0	10.0-14.0
Chromium	18.0-20.0	16.0-18.0
Molybdenum	----	2.0-3.0
Copper (Max.)	----	0.50
Iron	Balance	Balance

§ 178.51(f) *Wall thickness.*

(1) For outside diameters over 6" the minimum wall thickness shall be 0.078". In any case the minimum wall thickness shall be such that the calculated wall stress at minimum test pressure (§ 178.51(i)) shall not exceed 40,000 psi.

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§ 178.51(g) *Heat treatment.*

Heat treatment is not required.

§ 178.51(i) *Hydrostatic test.*

(1) Each cylinder shall be hydrostatically or pneumatically pressurized to a minimum 2 times the service pressure and held for 10 seconds at the test pressure and show no defects.

(2) One finished cylinder selected at random out of each lot of 200 or less successively produced shall be hydrostatically pressurized to 4 times the marked service pressure and the pressure must be held for 60 seconds without bursting or leaking.

§ 178.51(k) *Elongation.*

Applies except elongation must be at least 10% for 24t X 6t specimens.

b. TESTING - The retest must be performed by the cylinder manufacturer or a person holding a current retester's identification number issued by the Research and Special Programs Administration in accordance with § 180.209.

(1) Each cylinder which is used for a hazardous material non-corrosive to the cylinder must be reinspected and hydrostatically retested within 10 years of the manufacture date and then be requalified at least every 5 years. The retested cylinders must be subjected to an internal hydrostatic pressure equal to at least two times the marked service pressure without determination of expansion. The cylinders must be carefully examined under the test pressure and removed from service if leaks or other harmful defects exist.

(2) Each cylinder which is used for a hazardous material that is corrosive to the cylinder must be reinspected and hydrostatically retested within 5 years of the manufacture date and then be requalified at least every 5 years. The cylinders must be visually inspected internally and externally in accordance with CGA Pamphlets C-6. The hydrostatic retest method may only include the direct expansion or water jacket volumetric expansion test. Each cylinder must be subjected to a pressure of at least two times the marked service pressure.

c. OPERATIONAL CONTROLS - The quantity limitations in § 172.101, Column (9B) apply to shipments made under this special permit.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modifications or changes are made to the packaging and it is offered for transportation in conformance with this special permit and the HMR.

c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this special permit must be marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.

e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.

f. Transportation of a Division 2.1 (flammable gases) is not authorized aboard cargo vessel or aircraft unless specifically authorized in the Hazardous Materials Table (§ 172.101).

g. Transportation of Oxygen by aircraft is only authorized when in accordance with § 175.501.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, cargo aircraft only. (See paragraphs 7.c., and paragraphs 8.f. and g.)

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or aircraft used to transport packages covered by this special permit. The shipper shall furnish a current copy of this special permit to the air carrier before or at the time the shipment is tendered.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous

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materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.



for Theodore L. Willke
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO:dl