U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

OCT 2 2 2004

DOT-E 13542

EXPIRATION DATE: September 30, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Worthington Cylinders (Gmbh), Austria

US Agent: Worthington Cylinders Corporation
Columbus, OH

2. PURPOSE AND LIMITATIONS:

a. This exemption authorizes the manufacture, marking, sale and use of a non-DOT specification cylinder conforming with ISO Standard 9809-2, except as specified herein, for the transportation in commerce of the materials authorized by this exemption. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

c. Party status will not be granted to this exemption.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.301 and 180.209 in that a non-DOT specification cylinder is not authorized except as specified herein.

5. BASIS: This exemption is based on the application of the Worthington Cylinders (Gmbh) dated November 11, 2003 and additional information dated February 27 and April 13, 2004 submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description - - proper shipping name	**Hazard Class/ Division**	**Identi- fication Number**	**Packing Group**
Gases or mixtures of gases authorized in the HMR to be shipped in DOT-3AA specification cylinders except gases stated herein *	2.1 2.2 2.3	Various	N/A

* The following materials may not be shipped under the terms of this exemption:

a. Hydrogen, compressed natural gas, hydrogen sulphide, or carbon monoxide;

b. Any gas mixture containing hydrogen sulphide or other free sulfides, or containing hydrogen or compressed natural gas;

c. Any gas mixture containing more than 10 percent (10%) carbon monoxide;

d. Any gas mixture containing carbon monoxide and having a dew point of minus 11°C or higher at one (1) atmosphere;

e. Any gas or mixture of gases which does not remain in a gaseous state when contained in the cylinder at filling pressure at 21°C; and

f. Any mixture of gases, the quantity of one or more of which is capable of combining chemically with other gases in such mixture or of combining chemically with the cylinder steel so as to significantly reduce the effectiveness of the cylinder.

g. Any gas that may cause embrittlement in steel.

h. The cylinder may not be used for underwater breathing unless the external surface is prepared (zinc coating) for prevention of salt water corrosion.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a non-DOT specification seamless steel cylinder as shown on Worthington Cylinders (Gmbh) drawing numbers N2500-N9100 2673611, N3000-N100002803811 and N3000-N99002805111 and the supporting documentation on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). Additionally, the cylinder meets all the requirements of ISO Standard 9809-2:2002 (Gas Cylinders - Refillable seamless steel gas cylinders - Design, construction and testing - Part 2: Quenched and tempered steel cylinders with tensile strength greater than or equal to 1100 MPa) except as follows:

(1) Each cylinder made under this exemption is limited to have a maximum ultimate tensile strength (U.T.S.) of 1220 MPa.

(2) Each cylinder must be fitted with a pressure relief device in accordance with 49 CFR §§ 173.40 and 173.301(f).

(3) Cylinder valves must be in accordance with 49 CFR § 173.301(g). The valve protection must protect the cylinder valve, using caps, shrouds or guards from damage which could cause inadvertent release of the contents of the cylinder. Caps, shrouds or guards, must meet the performance requirements of ISO Standard 11117:1998 (Gas Cylinders - Valve Protection Caps and Valve Guards for industrial and medical gas cylinders - Design, construction and tests).

b. TESTING -

(1) Each cylinder must be re-qualified for use in accordance with the latest revision of ISO Standard 6406 (Gas cylinders - Seamless steel gas cylinders - Periodic inspection and testing) using the ultrasonic examination (UE) described in the ISO/FDIS 6406:2004.

(2) Cylinders used for Division 2.3 gases or mixtures must be re-qualified at least once every five years.

(3) Cylinders used for Division 2.1 or 2.2 gases or mixtures must be re-qualified at least once every ten years.

(4) Each re-qualification (re-test) facility must have a current requalification identification number(RIN) from the Office of Hazardous Materials Exemptions and Approvals (OHMEA). Also the facility must be approved for use of UE by the OHMEA.

c. MANUFACTURE - Production under this exemption is limited to the Worthington Cylinders GmbH facility located in Kienberg b. Gaming, Austria. The manufacturer of a cylinder under this exemption must secure an approval in accordance with the applicable provisions of 49CFR § 107.807 prior to production. In addition, to perform the duties specified in § 178.35©, the independent inspection agency must be approved by the OHMEA in accordance with the procedures in 49 CFR § 107.803.

d. MARKING - Each cylinder must be stamped "DOT E-13542" and with other marks as approved in writing by the OHMEA in letters and figures at least 5 mm (0.20 inch) high into the metal of valve end. Additionally, each cylinder must conform to the marking requirements in 6.2.2.7 of the UN Model Regulations, 13th revision. Each cylinder manufactured under the authority of this exemption must be stamped to show the United States as a country of approval and the manufacturing facility approval number assigned by the OHMEA, separated by a slash. This marking must be shown as, "USA/M8304",. Cylinders approved by more than one national authority may list each country of approval, separated by a comma.

e. OPERATIONAL CONTROLS - Each cylinder must remain in dedicated product service for its entire life.

8. SPECIAL PROVISIONS:

a. The manufacturer of the cylinders covered by this exemption must retain the test reports required by this exemption for as long as the cylinders are authorized for use under this exemption plus one year.

b. A copy of the Inspector's report for the first three lots produced must be submitted to the Office of Hazardous Materials Technology prior to shipment.

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

d. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modification or change is made to the package or its contents and it is offered for transportation in conformance with this exemption and the HMR.

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

f. A current copy of this exemption must be maintained at the approved facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel used to transport packages covered by this exemption.

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

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

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

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

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued in Washington, D.C.:

for Robert A. McGuire
Associate Administrative for
Hazardous Materials Safety

OCT 2 2 2004
Date

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

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.
PO: Toughiry