

**Research and Special Programs
Administration**

**High Pressure Composite Hoop
Wrapped Cylinders 4500 P.S.I.G.
Marked Service Pressure; Cylinders—
85-4**

AGENCY: Materials Transportation
Bureau, Research and Special Programs
Administration, DOT.

ACTION: DOT-E 7235, Exemption related
notice.

SUMMARY: The purpose of this notice is to require all cylinders manufactured under DOT-E 7235 that are marked DOT-E 7235 4500 and not equipped with neckrings, be removed from service before October 1, 1985. This action is being taken because MTB believes continued use of these cylinders without neckrings may pose a safety problem.

Notes:—Cylinders addressed in this notice are other than those specifically identified in FR Notices August 11, 1983, (48 FR 36559) and July 17, 1985, (50 FR 29038) as being subject to unconditional recall.

FOR FURTHER INFORMATION CONTACT:
Arthur Mallen, Office of Hazardous
Materials Regulation, Materials
Transportation Bureau, U.S. Department
of Transportation, Washington, D.C.
20590, (202) 755-4906.

SUPPLEMENTARY INFORMATION: While the basic cause of the failure of cylinders manufactured under exemption DOT-E 7235 has not as yet been determined, metallurgical analysis indicates that the fractures are intergranular and result from sustained load crack propagation.

On February 27, 1984, the Materials Transportation Bureau (MTB) published a notice (49 FR 7182) specifying a reduction in filling pressure from 4500 psi to 4000 psi for all cylinders manufactured under exemption DOT-E 7235 and marked DOT-E 7234-4500. This action was based on failure analysis and testing performed by the manufacturer, Luxfer USA Limited (Luxfer), which demonstrated that reducing the maximum filling pressure from 4500 psi to 4000 psi would substantially decrease the likelihood of a catastrophic failure.

On November 1, 1984, MTB published a notice (49 FR 44047) specifying that exemption DOT-E 7235 had been amended to authorize filling to 4500 psi of acceptable cylinders marked DOT-E 7235-4500 and equipped with a steel neckring installed under the supervision of Luxfer. This action was based on results of a series of hydrostatic and

hydro-pneumatic burst tests performed by Luxfer on preflawed cylinders with and without neckrings. Luxfer's test results showed that all test cylinders with neckrings failed by leakage only while a considerable number of test cylinders without neckrings failed by rupturing.

Since the type of failure experienced in these cylinders is considered "time dependent", MTB believes that prolonged usage of cylinders without neckrings may present a safety problem even when the filling pressure is limited to 4000 psi. Accordingly, MTB has amended DOT-E 7235 to require that any cylinder manufactured under exemption DOT-E 7235, which is marked DOT-E 7235-4500 and is not equipped with a neckring be removed from service, prior to October 1, 1985.

Issued in Washington, D.C. on August 9, 1985 under authority delegated in 49 CFR Part 106, Appendix A.

Thomas J. Charlton.

*Acting Associate Director for Hazardous
Materials Regulation, Materials
Transportation Bureau.*

[FR Doc. 85-19487 Filed 8-14-85; 8:45 am]

BILLING CODE 4910-60-M