



Cal/OSHA, DOT HAZMAT, EEOC, EPA, HAZWOPER, HIPAA, IATA, IMDG, TDG, MSHA, OSHA, and Canada OHS Regulations and Safety Online Training

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EFFECTIVE SEPTEMBER 11, 2006,

PHMSA adopted standards into the Hazardous Materials Regulations (49 CFR Parts 171-180) for the design, construction, and use of UN pressure receptacles based on the standards contained in the United Nations Recommendation on the Transport of Dangerous Goods (UN Model Regulations).

WHAT DOES HM-220E DO?

The HM-220E final rule:

- Authorizes the design, construction, testing, and use of UN cylinders, tubes, and multiple-element gas containers (MEGCs)
- Specifies requalification methods and intervals for UN pressure receptacles
- Establishes filling requirements for UN pressure receptacles conforming to the UN Model Regulations
- Promotes greater flexibility and permits the use of advanced technology for the manufacture of pressure receptacles
- Provides for a broader selection of pressure receptacles
- Reduces the need for special permits
- Facilitates international transportation

DOES HM-220E AFFECT THE CURRENT REQUIREMENTS FOR DOT SPECIFICATION CYLINDERS?

No. HM-220E allows a shipper to use either a DOT specification cylinder or a UN standard pressure receptacle, as appropriate for individual gases and circumstances.

WHAT ELSE SHOULD I KNOW?

Definitions:

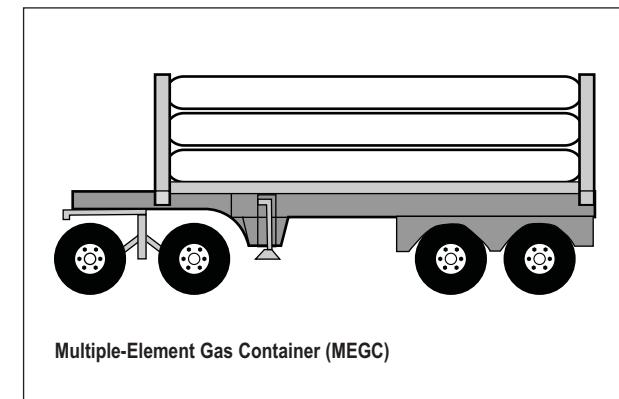
ISO—International Organization for Standardization

UN Cylinder—Transportable pressure receptacle with a water capacity not exceeding 150 L (37.5 gal.)

UN Pressure Receptacle—A UN cylinder or a UN Tube

UN Tube—Transportable pressure receptacle with a capacity exceeding 150 L (37.5 gal.) but not more than 3000 L (750 gal.)

Multiple-Element Gas Container (MEGC)—Assemblies of UN cylinders, tubes, or bundles of cylinders interconnected by a manifold and assembled within a framework. The term includes all service equipment and structural equipment necessary for the transport of gases.



WHAT ARE THE NEW UN PRESSURE RECEPTACLE DESIGN TYPES?

- Acetylene cylinders; except the cylinders must be made of seamless steel, contain a suitable quantity of solvent, and have fusible plugs [§173.303, §178.71(k)]
- Refillable seamless aluminum cylinders conforming to ISO 7866

WHAT TYPES OF MARKINGS APPEAR ON UN PRESSURE RECEPTACLES?

TOP ROW

Contains manufacturing marks such as the cylinder thread type, the country of manufacture, and the serial number assigned by the manufacturer.

Suitability for underwater use "UW" (if applicable; composite cylinders only)

Stamp of non-destructive testing (if applicable)

Identifies aluminum alloy (if applicable)

Compatibility mark for hydrogen embrittlement gases or gas mixtures "H" (if applicable; steel pressure receptacles only)

Serial number assigned by manufacturer

Country of manufacture

Identification of cylinder thread type

25E USA 765432 . . .
PW200 PH300BAR 62.1KG 50 L 5.8MM
UN ISO 9809-1 USA/MXXXX IB 2005/12

UN packaging symbol

ISO standard (e.g. 9809-1, 9809-2, etc.) used for design, construction, and testing

Mark of country or countries where approval is granted followed by manufacturer's approval mark. Only UN pressure receptacles marked "USA" are authorized for transport to, from, or within the United States

Identity mark or stamp of the Independent Inspection agency

Date of initial inspection, year followed by month separated by slash

BOTTOM ROW

Contains certification marks such as the UN packaging symbol, the ISO standard, the country or countries of approval, and the manufacturer's approval mark.

Other markings are permitted in other low stress areas provided they are not on the side wall.
Other markings must not conflict with the required markings.

- Refillable seamless steel cylinders conforming to ISO 9809-1, 9809-2, or 9809-3
- Non-refillable cylinders conforming to ISO 11118
- Composite cylinders conforming to ISO 11119-1, 11119-2, or 11119-3
- Refillable tubes conforming to ISO 11120