



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

**August 01, 2022**

1200 New Jersey Avenue, SE  
Washington, DC 20590

DOT-SP 12187  
(TWELFTH REVISION)

**EXPIRATION DATE: 2026-06-30**

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Illinois Tool Works Inc.  
Decatur, AL
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale, and use of a non-DOT specification cylinder conforming with all regulations applicable to a DOT Specification 39 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 development of this special permit only considered the hazards and risks associated with transportation in commerce.
  - c. In accordance with 49 CFR 107.107(a), party status may not be granted to a manufacturing permit. These packagings may be used in accordance with 49 CFR 173.22a.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171- 180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.304a(a) in that the use of a non-DOT specification cylinder is not authorized, except as specified herein.

5. BASIS: This special permit is based on the application of ITW Sexton dated July 16, 2022, submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Air, compressed	2.2	UN1002	N/A
Compressed gas, n.o.s.	2.2	UN1956	N/A
Refrigerant gas, n.o.s.	2.2	UN1078	N/A
Refrigerant gas R 404A	2.2	UN3337	N/A
Refrigerant gas R 407C	2.2	UN3340	N/A
Refrigerant gas R-410a	2.2	UN3163	N/A

**NOTE:** See paragraph 7.b.(3) for commodity pressure limitations.

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a non-DOT specification steel cylinder consisting of a seamless shell with the bottom attached by a mechanical seam. Construction must be in conformance with the grantee's drawing numbers 995D0002 Rev. E dated October 27, 2006, 995D0003 Rev. F dated October 27, 2006, 998D0059 dated May 21, 2013, 998D0072 dated May 20, 2013, and 995D0101 Rev. G dated November 26, 2016 on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPD), and in conformance with the requirements of a DOT Specification 39 cylinder (§§ 178.35 and 178.65), except as follows:

§ 178.35(e) *Safety Devices*. The pressure relief system consists of a localized area of the bottom designed to fail at a minimum pressure of 357 psig and a maximum pressure of 571 psig. The pressure relief system on cylinders conforming to 995D0101 for Refrigerant gas R-410a, UN3163 must be designed to fail at a minimum pressure of 729 psig and a maximum pressure of 850 psig. One cylinder must be taken from the beginning of production of each lot and pressurized until the relief system functions. If the system fails to function between the above pressures the lot represented by the test must be rejected.

§ 178.65(a) Type, size, service pressure and test pressure. Each cylinder must be made from steel and have a seamless cylindrical body with the bottom attached by means of a circumferential mechanical joint.

(1) Water capacity may not exceed 61 cubic inches (1L). Maximum service pressure is 264 psig except for Air, compressed, UN1002, for which the maximum service pressure is 192 psig and Refrigerant gas R-410a, UN3163, for which the maximum service pressure is 322 psig.

(2) Minimum test pressure is 357 psig, except for Refrigerant gas R-410a, UN3163, for which the test pressure is 486 psig.

\* \* \* \* \*

§ 178.65(c) Manufacture.

\* \* \*

(2) \* \* \*

(i) Mechanical joints must have strength equal to or greater than the minimum strength of the shell material in the finished cylinder.

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§ 178.65(d) Wall thickness.

\* \* \* Wall thickness less than 0.0085 inch is not authorized, except for Refrigerant gas R-140a, UN3163, for which a wall thickness less than 0.0100 inch is not authorized.

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§ 178.65(f) Pressure tests.

(1) Each cylinder must be tested to bring the internal temperature to 130 °F or the minimum test pressure listed above, whichever is higher.

\* \* \* \* \*

(2)(ii) A failure initiates in a mechanical joint.

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§ 178.65(i) Markings.

(2) \* \* \*

(i) The cylinder must be marked “DOT-SP 12187” instead of “DOT-39”.

\* \* \* \* \*

(3) \* \* \*

Refrigerant gas R-410a, UN3163	DOT-SP 12817 NRC 322/468 M * * * *
All other materials	DOT-SP 12817 NRC 264/357 M * * * *

b. OPERATIONAL CONTROLS:

(1) Filling density may not exceed 85 percent.

(2) The cylinder must be shipped in strong non-bulk outer packagings in accordance with § 173.301(a)(9).

(3) The pressure of the lading at 70 °F may not exceed 192 psig for Air, compressed, UN1002; 322 psig for Refrigerant gas R-410a, UN3163; or 264 for all other materials. The pressure of the lading at 130 °F, may not exceed 357 psig, except for Refrigerant gas R-410a, UN3163, which may not exceed 486 psig.

(4) Refrigerant gas R-410a, UN3163 may only be transported in cylinders conforming to drawing 995D0101 Rev. G.

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 package covered by this special permit, may reoffer it for transportation provided no modifications or changes are made to the package 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 either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Safety Approvals and Permits Division for a specific manufacturing facility.
- e. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.
9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel, and cargo-only aircraft.
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 must 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, 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 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 William Schoonover  
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 <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: MT/TG/KAH