



SURFACE VEHICLE STANDARD

J1206™

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Superseding J1206 APR1997

Methods for Testing Snap-In Tubeless Tire Valves

RATIONALE

J1206 has been reaffirmed to comply with the SAE Five-Year Review policy.

1. Scope—This SAE Standard contains recommended test methods for snap-in tubeless tire valves intended for, but not limited to, highway applications. A snap-in valve is a tire valve having a rigid housing adhered to a resilient body designed to retain and seal the valve in the rim hole.

2. References

2.1 Applicable Publications—The following publications form a part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J1205—Performance Requirements for Snap-In Tubeless Tire Valves

2.1.2 TIRE AND RIM ASSOCIATION—Tire and Rim Association, 175 Montrose West Avenue, Suite 150, Copley, OH 44321.

Tire and Rim Association Year Book

2.2 Related Publication—The following publications are provided for information purposes only and are not a required part of this document.

2.2.1 ISO PUBLICATION—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ISO 3877/2—Tyres, valves, and tubes—List of equivalent terms

3. General Requirements—Section 4, Test Methods of this document correspond to Section 4, Test Values, of SAE J1205.

3.1 A snap-in valve is a unit free of rubber in the air passage, no rubber or cement above the second thread on the housing and without flow cracks, blisters, voids, or other molding defects. Mold parting line flash should not exceed 1.3 mm (0.050 in) in height and 0.15 mm (0.006 in) thickness at the outer edge.

3.2 Test Fixtures—Break both edges of the valve hole to approximately 0.13 mm (0.005 in) radius. Emery cloth or suitable tooling is recommended. It is recommended that material of the test fixture be representative of the material of the actual rim.

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- 3.3** All valves, while wet with clean water as a lubricant, shall be installed in a proper test fixture by applying valve insertion force to the end of the valve metal insert, perpendicular to the plane of the valve mounting hole and directly through the center of the valve mounting hole. No valve assembly, however, shall be tested which has damage resulting from installation.

A valve shall be considered properly seated when all of the indicator ring is observed to be through the rim or fixture valve mounting hole.

After installation, valve assemblies must be thoroughly dried in the sealing area before continuing tests.

3.4 Definitions

- 3.4.1** **UNUSED VALVES**—Those that have completed final manufacturing processing at least 24 h previously and have not been subjected to any test or service conditions (excluding the hardness test). Rubber compounds may change characteristics during their life expectancy.
- 3.4.2** **AGED VALVES**—Those unused valves that have been subjected to $100\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($212\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$) for 4 h in circulating hot air and cooled at $20\text{ to }26\text{ }^{\circ}\text{C}$ ($68\text{ to }78\text{ }^{\circ}\text{F}$) for a minimum of 4 h.

4. Test Methods

- 4.1** **Adhesion**—Subject unused molded valve to $100\text{ }^{\circ}\text{C} \pm 3\text{ }^{\circ}\text{C}$ ($212\text{ }^{\circ}\text{F} \pm 5\text{ }^{\circ}\text{F}$) for 4 h in a hot air circulating oven and allow to cool at $20\text{ to }26\text{ }^{\circ}\text{C}$ ($68\text{ to }78\text{ }^{\circ}\text{F}$) for 24 h. Make two axial, parallel cuts 180 degrees apart through the full thickness of the rubber cover down the entire length of the valve. Pull each side of the button base away from the insert towards the cap thread end.
- 4.2** **Hardness**—The rubber hardness of unused and aged snap-in valves shall be tested midway on the button base on a smooth area with a Shore Test A-2 Durometer gauge. The recommended equipment for this test is a Shore CVXAMX Conveloader Type A-2 Durometer (see Figure 1).

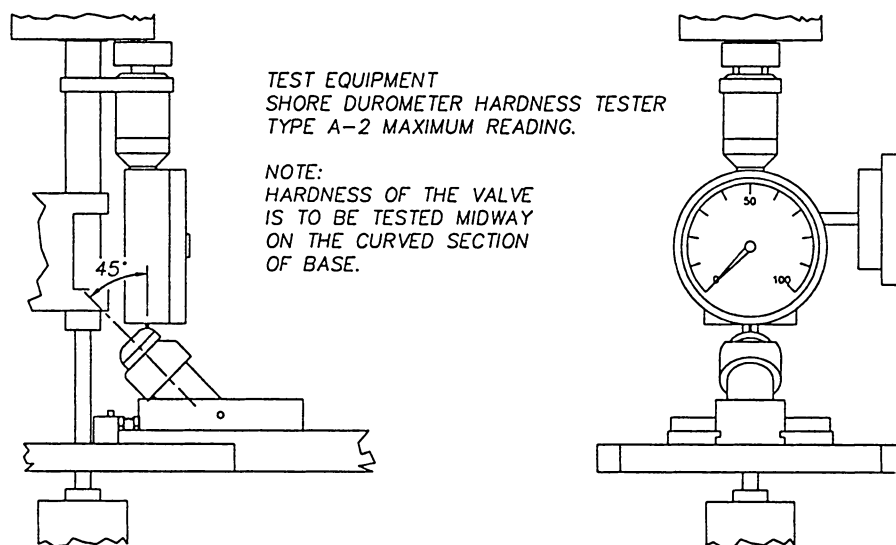


FIGURE 1—DUROMETER TEST FIXTURE