



#### S6.9.2 Preparation.

(a) Precondition the hose assembly by laying it on a flat surface in an unstressed condition, at room temperature, for 24 hours.

(b) Cut the brake hose assembly to a length of 8.6 inches (218 mm), such that no end fittings remain on the cut hose.

(c) Mount the brake hose onto the test fixture by fully inserting the fixture pins into each end of the hose. Secure the hose to the fixture pins using a band clamp at each end of the hose.

(d) Place the test fixture into an ozone chamber.

(e) Stabilize the atmosphere in the ozone chamber so that the ambient temperature is 104 °F and the air mixture contains air mixed with ozone in the proportion of 100 parts of ozone per 100 million parts of air by volume. This atmosphere is to remain stable throughout the remainder of the test.

(f) Begin cycling the movable pin at a rate of 0.3 Hz. Continue the cycling for 48 hours.

(g) At the completion of 48 hours of cycling, remove the test fixture from the ozone chamber. Without removing the hose from the test fixture, visually examine the hose for cracks without magnification, ignoring areas immediately adjacent to or within the area covered by the band clamps. Examine the hose with the movable pin at any point along its travel.

#### S6.10 High temperature impulse test.

##### S6.10.1 Apparatus.

(a) A pressure cycling machine to which one end of the brake hose

assembly can be attached, with the entire hose assembly installed vertically inside of a circulating air oven. The machine is capable of increasing the pressure in the hose from zero psi to 1600 psi, and decreasing the pressure in the hose from 1600 psi to zero psi, within 2 seconds.

(b) A circulating air oven that can reach a temperature of 295 °F within 30 minutes, and that can maintain a constant 295 °F thereafter, with the brake hose assembly inside of the oven and attached to the pressure cycling machine.

(c) A burst test apparatus to conduct testing specified in S6.2.

#### S6.10.2 Preparation.

(a) Connect one end of the hose assembly to the pressure cycling machine and plug the other end of the hose. Fill the pressure cycling machine and hose assembly with SAE RM-66-05 Compatibility Fluid, as described in Appendix B of SAE Standard J1703 JAN 1995, and bleed all gases from the system.

(b) Place the brake hose assembly inside of the circulating air oven in a vertical position. Increase the oven temperature to 295 °F and maintain this temperature throughout the pressure cycling test.

(c) During each pressure cycle, the pressure in the hose is increased from zero psi to 1600 psi and held constant for 1 minute, then the pressure is decreased from 1600 psi to zero psi and held constant for 1 minute. Perform 150 pressure cycles on the brake hose assembly.

(d) Remove the brake hose assembly from the oven, disconnect it from the pressure cycling machine, and drain the fluid from the hose. Cool the brake hose assembly at room temperature for 45 minutes.

(e) Wipe the brake hose using acetone to remove residual Compatibility Fluid. Conduct the burst strength test in S6.2.

S6.11 End fitting corrosion test. Utilize the apparatus described in ASTM B117-97, "Standard Practice for Operating Salt Spray (Fog) Apparatus".

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S6.11.3 Operation. \* \* \*

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(c) Upon completion, remove the salt deposit from the surface of the hose by washing gently or dipping in clean running water not warmer than 100 °F and then drying immediately.

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#### S6.12 Constriction Test.

(a) Utilize a plug gauge as shown in Figure 4. Diameter "A" is equal to 64 percent of the nominal inside diameter of the hydraulic brake hose being tested.

(b) Brake hose assemblies that are to be used for additional testing have constriction testing only at each end fitting. Other brake hose assemblies may be cut into three inch lengths to permit constriction testing of the entire assembly. Hose assemblies with end fittings that do not permit entry of the gauge (e.g., restrictive orifice or banjo fitting) are cut three inches from the point at which the hose terminates in the end fitting and then tested from the cut end.