



File In Section: 03 - Suspension

Bulletin No.: 05-03-10-003

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# Service Bulletin



## TECHNICAL

**Subject:** Low Tire Pressure, Leaking Cast Aluminum Wheels  
(Repair with Adhesive Sealant)

**Models:** 2005 and Prior GM Passenger Cars and Light Duty Trucks  
2005 and Prior HUMMER H2  
2005 and Prior Saturn Vehicles  
with Cast Aluminum Wheels

This bulletin is being revised to include additional models and repair information. This bulletin cancels and replaces Corporate Bulletin Numbers 93-3E-106, 93-263-3E and 93-U-57. Please discard Corporate Bulletin Numbers 93-3E-106, 93-263-3E and 93-U-57.

### Condition

Some customers may comment on a low tire pressure condition.

Diagnosis of the low tire pressure condition indicates an air leak through the cast aluminum wheel.

### Cause

Porosity in the cast aluminum wheel may be the cause.

### Correction

1. Remove the tire and wheel assembly from the vehicle. Refer to the appropriate service procedure in SI.
2. Locate the leaking area by inflating the tire to 276 kPa (40 psi) and dipping the tire/wheel assembly in a water bath, or use a spray bottle with soap and water to locate the specific leak location.

### Important:

- If the porosity leak is located in the bead area of the aluminum rim (where the tire meets the rim), the wheel should be replaced.
- If two or more leaks are located on one wheel, the wheel should be replaced.

3. If air bubbles are observed, mark the location.
  - If the leak location is on the tire/rubber area, refer to Corporate Bulletin Number 04-03-10-001A or newer – Tire Puncture Repair Procedures for All Cars and Light Duty Trucks (SI Document ID #1573203).
  - If the leak is located on the aluminum wheel area, continue with the next step.
4. Inscribe a mark on the tire at the valve stem in order to indicate the orientation of the tire to the wheel.
5. Dismount the tire from the wheel. Refer to Tire Mounting and Dismounting (SI Document ID #1332544).
6. Scuff the INSIDE rim surface at the leak area with #80 grit paper and clean the area with general purpose cleaner, such as 3M<sup>®</sup> General Purpose Adhesive Cleaner, P/N 08984, or equivalent.
7. Apply a 3 mm (0.12 in) thick layer of Silicone – Adhesive/Sealant, GM P/N 12378478 (Canadian P/N 10953493) or equivalent, to the leak area.
8. Allow for the adhesive/sealant to dry.

**Notice:** Caution must be used when mounting the tire so as not to damage the sealer. Damaging the repair area may result in an air leak.

9. Align the inscribed mark on the tire with the valve stem on the wheel.
10. Mount the tire on the wheel. Refer to Tire Mounting and Dismounting (SI Document ID #1332544).
11. Pressurize the tire to 276 kPa (40 psi) and inspect for leaks.
12. Adjust tire pressure to meet the placard specification.
13. Balance the tire/wheel assembly. Refer to Tire and Wheel Assembly Balancing - Off-Vehicle (SI Document ID #664222).
14. Install the tire and wheel assembly onto the vehicle. Refer to the appropriate service procedure in SI.

### Parts Information

Part Number	Description
12378478 (Canadian P/N 10953493)	Silicone – Adhesive/Sealant
3M <sup>®</sup> 08984	3M <sup>®</sup> General Purpose Adhesive Cleaner

Parts are currently available form GMSP0.

### Warranty Information

For vehicles repaired under warranty, use:  
One leak repair per wheel.

Labor Operation	Description	Labor Time
E0420	Wheel - One – R&R Or Replace	Use Published Labor Operation Time
Add:	To Repair Porosity On Aluminum Wheel	0.1 hr
Add:	To Repair Each Additional Wheel	0.4 hr

