Service Bulletin

File in Section: -
Bulletin No.: 17-NA-172
Date: October, 2017

INFORMATION

Subject: Rear Suspension Sagging or Sitting Low, Vehicle Not Level After Sitting Overnight

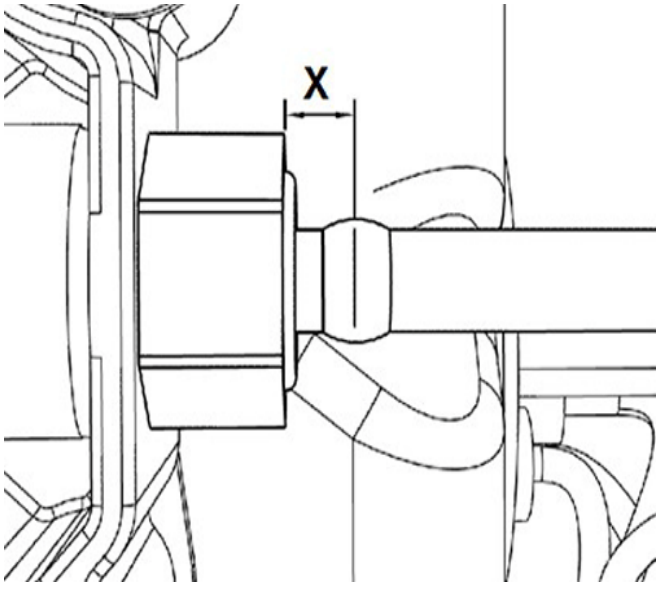
Brand:	Model:	Model Year:		VIN:		Engine:	Transmission:
		from	to	from	to		
Cadillac	XTS	2013	2018			All	All

Involved Region or Country	North America and N.A. Export Regions
Additional Options (RPOs)	Equipped with Rear Air Suspension (RPO F38)
Condition	Vehicles in new car inventory may be observed or some customers may comment that the rear of the vehicle is riding/sitting low, vehicle sagging, vehicle not level, suspension bottomed out, etc.
Cause	Review probable causes below.

Field feedback has identified additional causes/ appearance of leaks in the air suspensions system that are not found in service information. If DTCs are present, follow service information. If not, follow the procedure below in sequential order.

Verify Airlines are Inserted Correctly – Generally on Vehicles with Less Than 5000 Miles (8000 Km)

Caution: Prior to any visual and physical inspections of the airlines, the system should be depressurized according to SI. Failure to depressurize the system may cause personal injury or damage to the vehicle.



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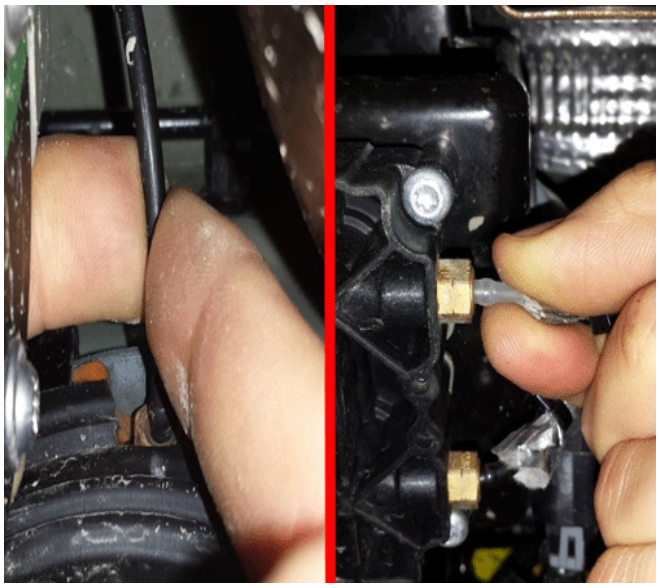
The air suspension system is very robust and if a vehicle is reported to have an air suspension failure in the first 5000 miles (8000 km), it is likely that the airline connections at the air springs were assembled incorrectly during the manufacturing process. The design of the airline does not allow for it to be partially inserted. It will either be fully seated or sitting loose in the fitting. There should be about 3-4 mm from the face of the valve to the notch in the airline (Dimension X above).

Physical Inspection

In order to check if the airline is seated, follow the below steps:

1. Depressurize the air suspension system according to SI. Failure to depressurize the system may cause personal injury or damage to the vehicle.



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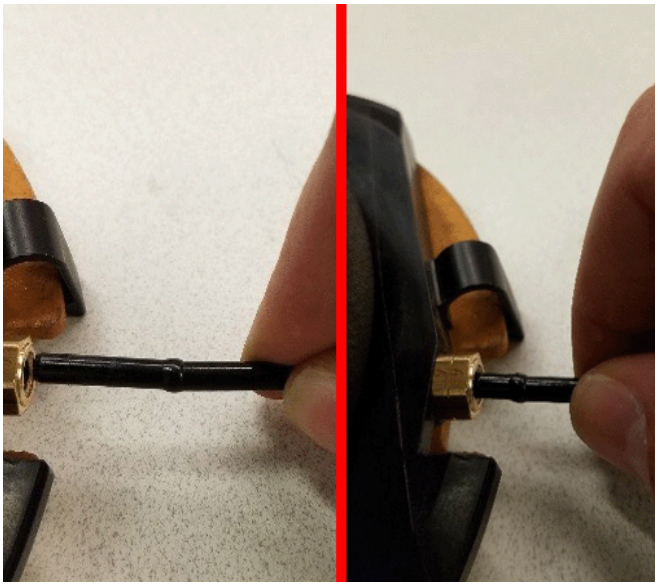
2. Use two fingers to grasp the airline. Do NOT use tools such a pliers or clamps.
3. Gently pull the airline outward. If the airline does not pull entirely out of the fitting, it is seated correctly. If the airline comes out it must be reinserted.

Correct Airline Insertion

The fittings used on the air suspension are generally similar in nature to a “Push to Connect Fitting.” The operator pushes the air-line until resistance is felt and continues to insert the air line until it bottoms out. At this point the air-line is to be gently and firmly pulled out (not yanked). This causes a collet to bite into the air-line causing it to seat permanently.

The problem that commonly occurs is, once the initial resistance is felt during the airline insertion, the operator believes the airline has bottomed out. In reality the airline is just sitting in place and could be worked out of the fitting over time.

Airline Insertion



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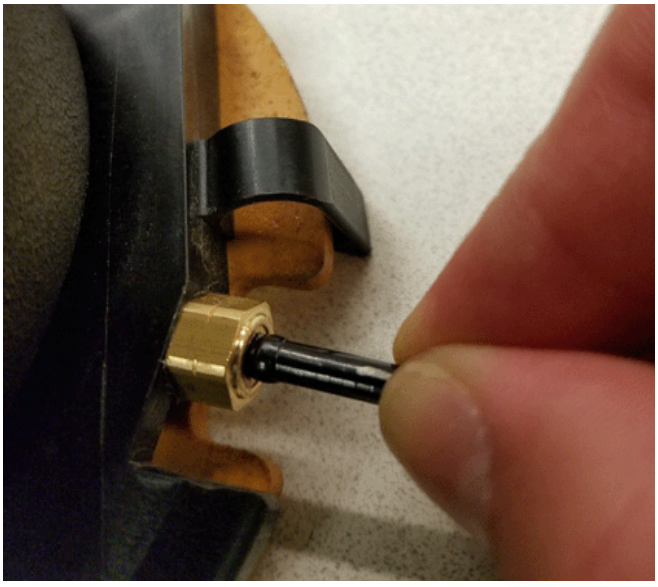
1. The airline should be inserted until resistance is felt in the system. The photo above shows how far the line must be inserted before the resistance begins.



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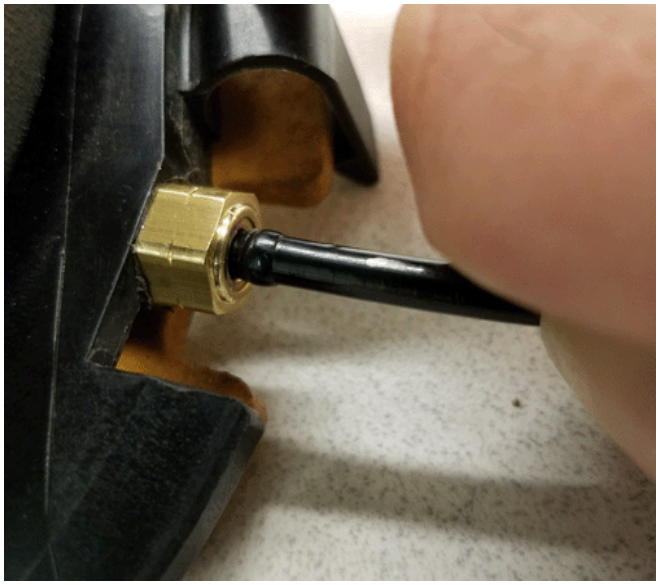
2. The airline should continue to be inserted until it bottoms out and can no longer be inserted any further.



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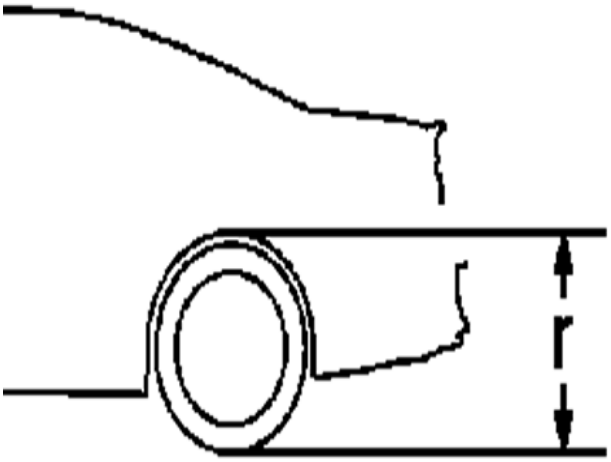

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3. The airline is then gently pulled out and the collet will seat.
4. Once the airlines are seated, pressurize the system according to SI.

Verify Trim Height is Set Correctly

The air suspension will lift the vehicle to a defined trim height. If the air suspension system is functioning correctly according to diagnostics in Service Information, then the trim height might need to be calibrated. Please follow the trim height calibration procedure in SI.

Note: Anytime suspension components are replaced on the rear of the vehicle, the trim height needs to be recalibrated. Please check the vehicle history for any previously done suspension work.

Verify if a Normal Condition is Being Perceived as a Leak

It is important to understand normal depressurization/ leaking of the air suspension system prior to diagnosis of failures. The system will exhaust pressure within 30 minutes after the ignition is turned off to lower the vehicle after unloading. In a temperature-controlled environment, the leakage of the complete load leveling system will not result in more than 1.4 mm (0.05 in) drop of rear suspension height at GVWR during a 24 hour period. If the outdoor temperature drops from +20° C (+68°F) to −5°C (+23°F), the rear R height may drop as much as 25 mm (1 in). However, the Air Suspension System should return to the specified R height when the ignition is again cycled to ON.

R Height: The vertical distance from the ground to the top of the wheel opening through the center line of the rear wheel.

If the suspension is sitting low, start the vehicle and allow the compressor to pressurize the system. It will not take more than a couple of minutes to bring the vehicle up to the correct ride height. Measure the current R Height. Allow the vehicle to sit for a 24 hour period and measure the R Height again. If temperatures have not changed for 24 hrs there should be minimal drop. If there was a large temperature drop (up to 45°F) in the 24 hr period ensure the drop is less than 1 inch. A height change greater than 1 inch should be treated as a leak in the system.

Note: The Air Suspension System must have a voltage supply of at least 12.6V to operate properly.

Warranty Information

For vehicles repaired under the Bumper-to-Bumper coverage (Canada Base Warranty coverage), use the following labor operation. Reference the Applicable Warranties section of Investigate Vehicle History (IVH) for coverage information.

Labor Operation	Description	Labor Time
8080308*	Verify Airlines are Inserted Correctly	0.3 hr
Add	Trim Height Calibration	0.2 hr
*This is a unique Labor Operation for Bulletin use only.		

Version	2
Modified	October 11, 2017 – Updated the Subject.