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> SS 1033523 Airliner Suspension Dump and Raise Func...

SS 1033523 Airliner Suspension Dump and Raise Functionality and Troubleshooting.

Subject: Airliner Suspension Dump and Raise Functionality and Troubleshooting.

Models Affected: Specific Freightliner New Cascadia's, manufactured from May 17.

This documentation applies to Freightliner, New Cascadia's, 2018 & 2019 Year Model vehicles equipped with a dash controlled suspension dump & raise switch.

Airliner Suspension Dump and Raise Functionality Test.

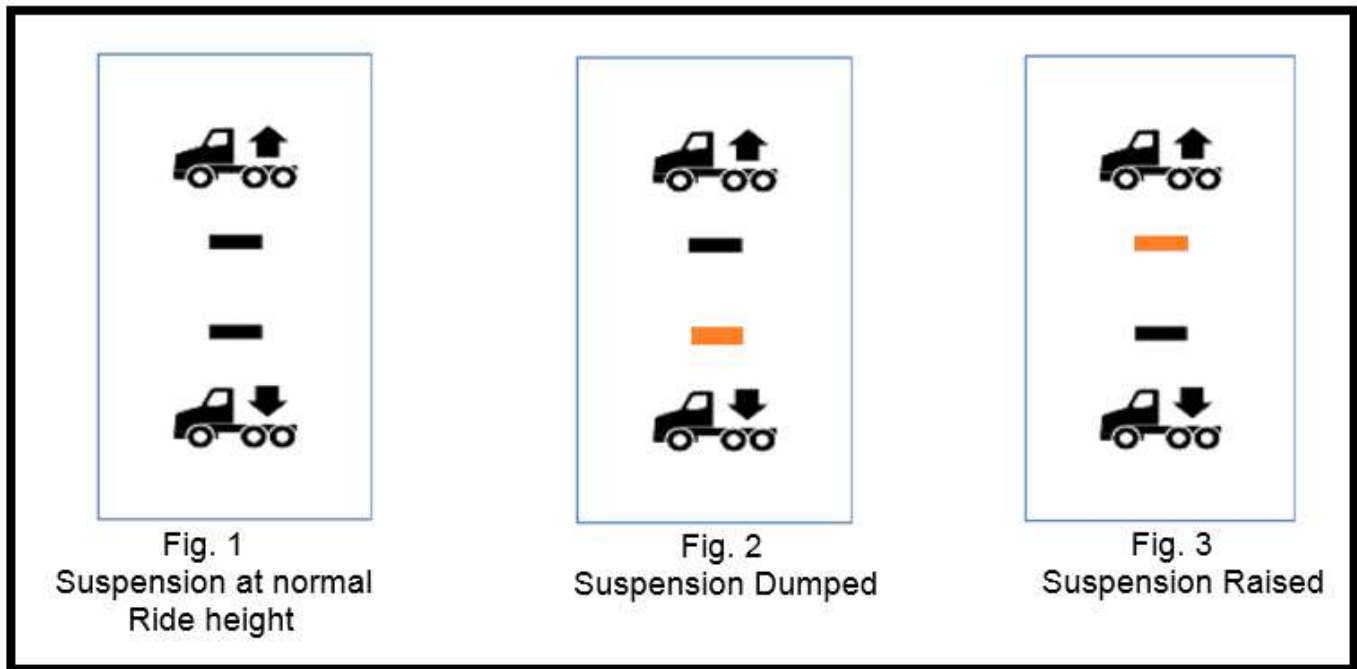
Test Pre-conditions:

1. Park the vehicle, shut down the engine, set the parking brake and chock the rear tires.
2. Start and run the engine until the air tanks are filled to operating pressure. Shut down the engine.
3. Insure the Airliner rear suspension is set to its normal ride height. Reference the New Cascadia workshop manual section 32.01.110 "Ride height Adjustment".

Testing Procedure: Suspension Dump & Raise.

1. Turn the ignition on. Locate the Suspension Dump & raise Switch Fig. 1
2. Press the suspension dump & raise switch **down**, the lower light will illuminate. Fig. 2.
3. Visually inspect the suspension to confirm that the air has exhausted from the air springs.
4. Press the suspension dump & raise switch **up**, the lower light will turn off.

5. Visually inspect the suspension to confirm it has returned to its normal ride height.
6. Press the suspension dump & raise switch **up**, the upper light will illuminate. Fig. 3.
7. Visually inspect the suspension to confirm it has raised 3/4 to 1 inch above normal.
8. Press the suspension dump & raise switch **down**, the upper light will turn off.
9. Visually inspect the suspension to confirm it has returned to its normal ride height.
10. **If all of these conditions are met the system is functioning correctly.**
11. If the suspension is not reacting to the switch commands and/or the switch lights are not illuminating review the troubleshooting information below.



Airliner Suspension Dump and Raise Troubleshooting.

Dash Switch, SSam & Latching Solenoid Wiring.

Using Diagnostic Link check the operation and parameters for the dump & raise switch. Check the wiring from the dump & raise switch to the SSAM. Ref. schematic G06-92193.

Check the wiring pin connections from the SSAM to the latching solenoids. Ref. schematic G06-92193.

Note:

Wire 221A connects to the “Apply” side of the Latching solenoid. Ref. Fig. 4.

Wire 221C connects to the “Release” side of the Latching solenoid. Ref. Fig. 4.

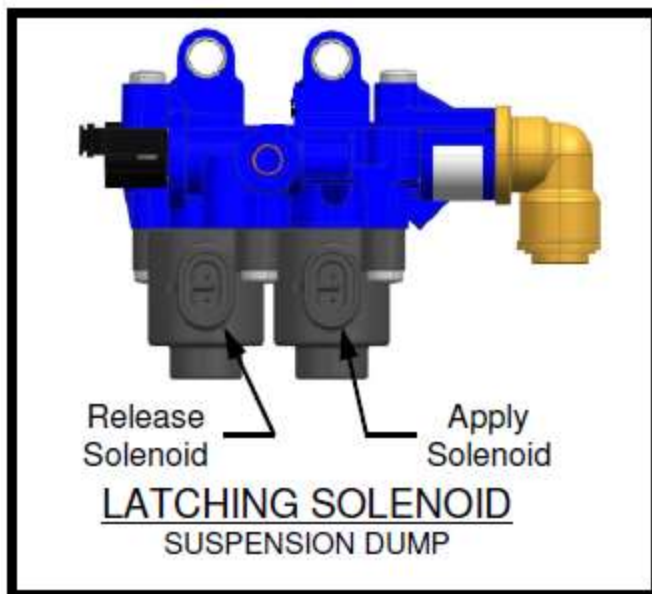


Fig. 4

Air Plumbing from the latching solenoid.

Check the air plumbing from the latching solenoids to the tees, double check valve and LACM valve.

Ref. Plumbing diagram D12-28521-page 3. Ref. Fig. 5.

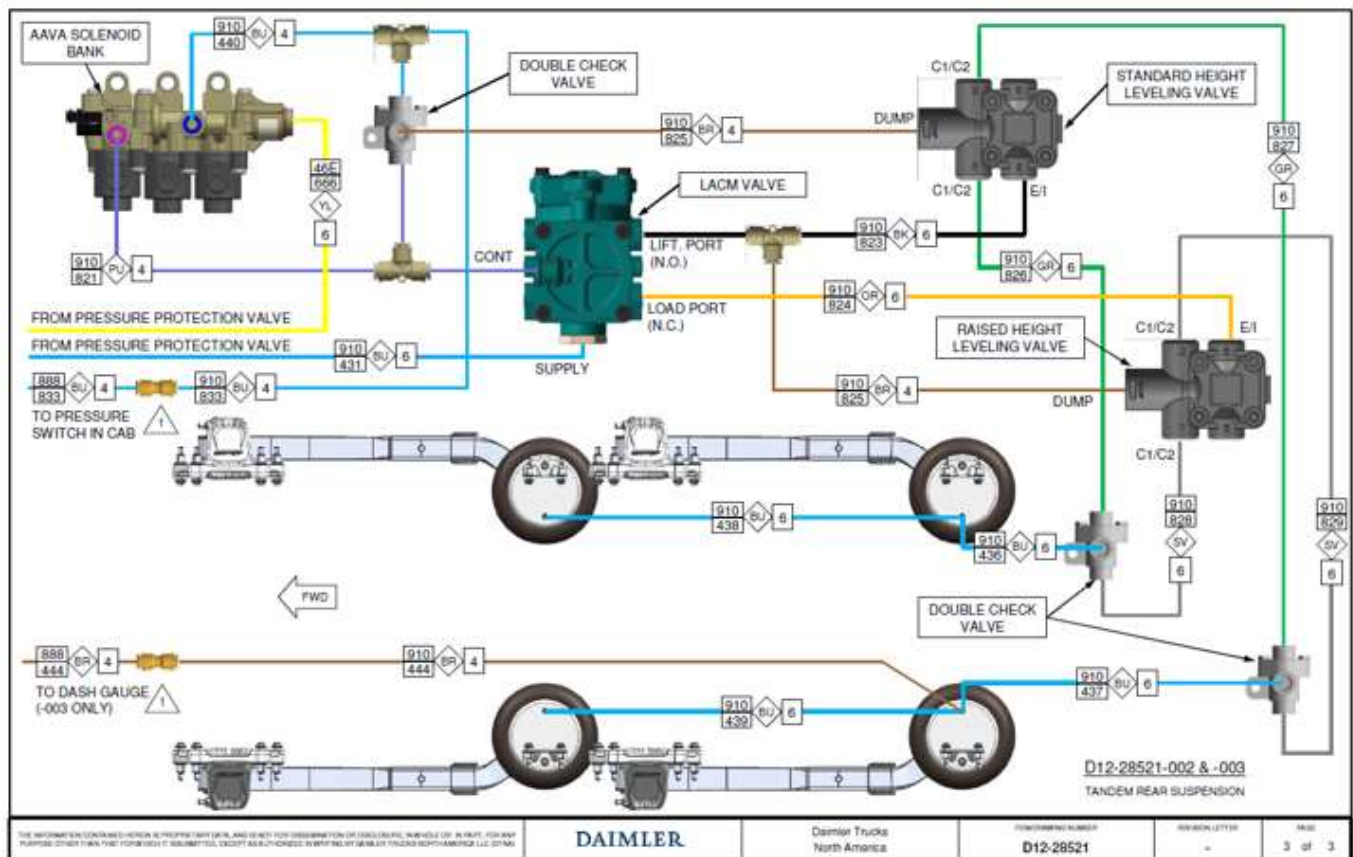


Fig. 5

Pressure switch wiring.

The location of the pressure switch (P/N 12-27919-000) is shown on installation drawing D12-27200-003 illustrated on page 5. Fig. 6.

Wiring to the pressure switch is shown on schematic G06-92193-001 on page 2.

(Ref. wire code 221 that goes from the pressure switch to the SSAM.)

(Ref. wire code GND-C that goes from the pressure switch to ground.)

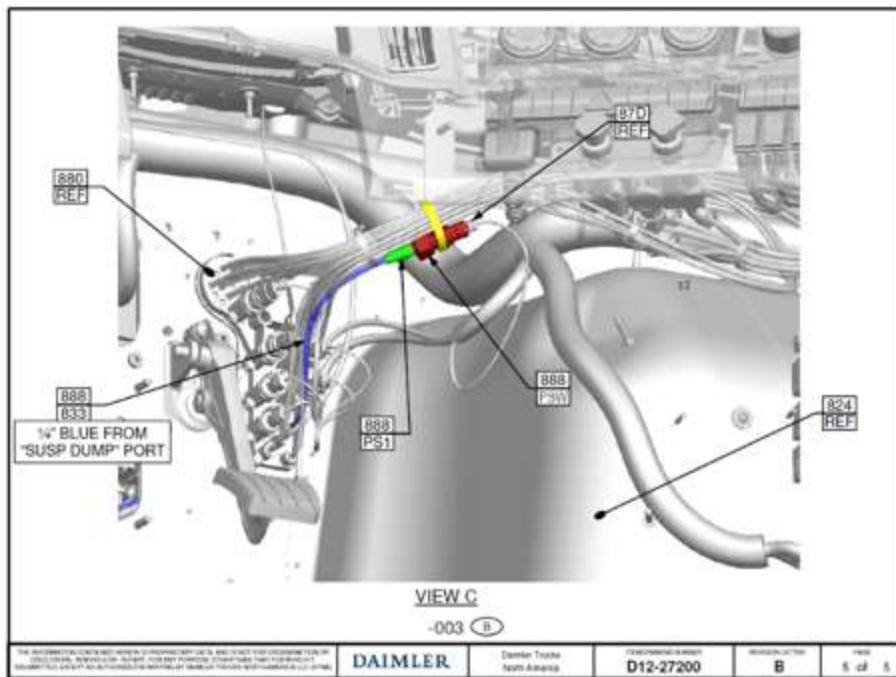


Fig. 6 Pressure Switch installation

Pressure switch air plumbing.

The airline from the pressure switch is identified as number **833** shown on installation drawing D12-27200-**003** page 5.

Make sure airline **833** is plumbed to the same pass through port on the inside and outside of the pass through manifold.

Make sure airline **833** is plumbed to the tee at the double check valve as shown on installation drawing D12-28521-002 page 3.

Make sure airline **440** is plumbed from the tee at the double check valve to the latching solenoid as shown on installation drawing D12-28521-002 page 3.

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dump & raise group 32 rear suspension

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Comments



Sean_Evans

06-21-2018 06:16 AM

This is good stuff, I have had a few new cascadias come in with both air plumbing and electrical connectors connected wrong. This definitely makes it nice for those who are unfamiliar with this setup.



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