

This Service Bulletin replaces, SB 728-04 "Air Suspension, Adjustment (Ride Height and Driveline Calculation)" (4.2012)

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10.2015	728	13	01	1(6)

Air Suspension Height, Adjustment VNL, VNM

Air Suspension Height, Adjustment

This document provides procedures for adjusting the air suspension on vehicles equipped with the VOLVO Blade Air Suspension (VBAS) with drum brakes.

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Note: Information is subject to change without notice. Illustrations are used for reference only, and may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

Tools

Special Tools

For special tools ordering information, refer to Tool Information, Function Group 08.



W0001815

J-44544

Ride Height Adjustment Socket

Service Procedures

7281-05-03-01

Air Suspension Height, Adjustment



DANGER

Do not attempt to repair or service this vehicle without sufficient training, the correct service literature, and the proper tools. Failure to follow this could make the vehicle unsafe and lead to serious personal injury or death.

You must read and understand the precautions and guidelines in Service Information Function Group 70, "General Safety Practices, Frames, Springs and Wheels" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.



CAUTION

The VOLVO air suspension is set at the factory. Changing the ride height will affect the driveshaft angles and may cause driveline vibration and/or shorten component life.
Ride height adjustments must be performed in accordance with all documented service procedures.

Note: After a suspension component replacement an alignment should be performed.

Special tools: J-44544

Air Suspension Ride Height Check/Adjustment

1

Prepare the vehicle for the ride height calculation as follows:

- Park the vehicle on a level surface (the front wheels must be pointed straight ahead).
- Free and center all suspension joints by slowly moving the vehicle back and forth twice without using the brake. When coming to a complete stop, make sure the brakes (parking and service) are released.
- Chock the front wheels.

Note: Measurements must be performed on an unloaded vehicle.

2

Check all tires for proper inflation. Adjust tire air pressure to tire manufacturer's specifications.

3

Using the dash mounted rear suspension air dump switch release the air in the rear air spring, or disconnect the leveling rod from the leveling valve so that the pressure is released from the air springs.



WARNING

Avoid personal injury. BEFORE releasing air pressure from air springs, BE SURE neither your hand nor another person's hand, etc., is in a position where it could be pinched between components when the frame/suspension drops.

4

Start the engine and allow the air system to attain normal operating pressure of 827 kPa (120 psi). Turn off the engine.

5

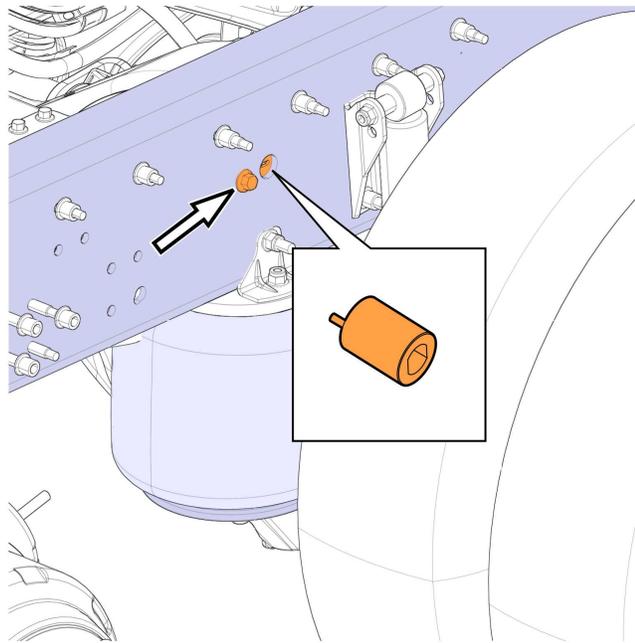
Fill the rear air springs with air using the dash mounted switch or reconnect the actuator rod to the load leveling valve lever.

Ensure the air system is at normal operating pressure of 827 kPa (120 psi).

6

Measure the size of the frame.

Note: The ride height measurement is dependent on frame size.



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- 7
Measure the distance from the floor to the center of the axle.
- 8
Measure the distance from the bottom edge of the frame to the floor.
- 9
The difference in the two measurements is the ride height. Verify that the vehicle is at the correct ride height per Table A.
- 10
Adjust the ride height (if required).
- 11
Loosen the fastener securing the load leveling valve to the frame. Use the ride height adjustment socket wrench to adjust the valve so the ride height is within specification. The suspension ride height is changed by turning the load leveling valve clockwise (to raise) or counter-clockwise (to lower). Tighten the fastener securing the load leveling valve to the frame to 175 ± 30 Nm (129 ± 22 lb-ft).

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- 12
Re-check the ride height to confirm the accuracy of the leveling valve adjustments.
- 13
Using the dash mounted rear suspension air dump switch release the air in the rear air spring, or disconnect the leveling rod from the leveling valve so that the pressure is released from the air springs.



WARNING

Avoid personal injury. BEFORE releasing air pressure from air springs, BE SURE neither your hand nor another person's hand, etc., is in a position where it could be pinched between components when the frame/suspension drops.

14

Start the engine and allow the air system to attain normal operating pressure of 827 kPa (120 psi). Turn off the engine.

15

Fill the rear air springs with air using the dash mounted switch or reconnect the actuator rod to the load leveling valve lever.

Ensure the air system is at normal operating pressure of 827 kPa (120 psi).

16

Re-check the ride height.

If the ride height measurement is not within the specifications. Check the leveling valve and other suspension components for wear or damage.

17

Apply the parking brake.

18

Remove the wheel chocks.

Frame and Ride Height Specifications

Table A — Frame Height and Ride Height Measurements

Frame Height mm (in.) including frame type	Ride Height mm. (in.) (unloaded)
266 (10.47) RRH-200	210 ± 5 (mm), 8.27 ± .2 (in)
300 (11.81) RRH-180	193 ± 5 (mm), 7.6 ± .2 (in)