PREVOST

ENREGISTRÉ - REGISTERED
ISO 9001 & ISO 14001

MAINTENANCE INFORMATION Mi11-68C

PREVOST

DATE :	**APRIL 2014**	**SECTION : 12 - Brakes**
SUBJECT :	**VOLVO 9700 BRAKE AIR SYSTEM CHECK**	

REV C: Steps 4-9-10-13 modified

APPLICATION

Model	VIN 
Volvo 9700 Coaches Model Year : 2009- Current	All 9700 Coaches

DESCRIPTION

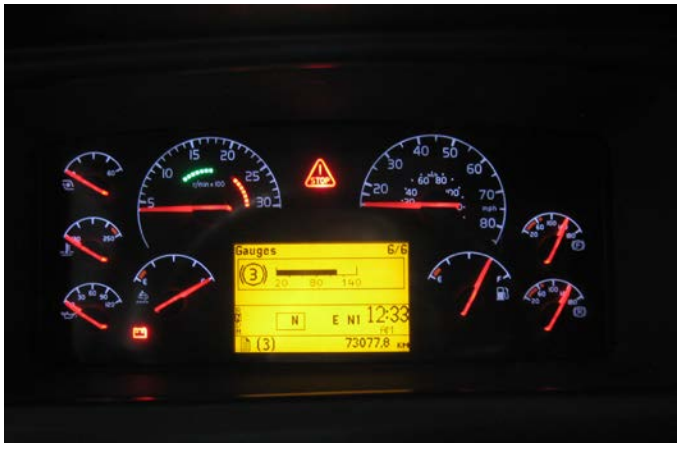
The following procedure addresses the inspection and verification of a Volvo 9700 brake air system. The procedure will address the proper functioning of check valves, overflow valves and limiting valves.

PROCEDURE

DANGER

Park vehicle safely, apply parking brake, stop engine and set battery master switch(es) to the OFF position prior to working on the vehicle.

1. Begin test procedure with full air pressure, parking brake released, engine OFF and ignition ON.



2. Use the cluster display to check third circuit air tank pressure. To do so, press “Enter”, choose “Gauge mode”, go to screen (3) that shows 3rd axle air pressure (See picture below)

WARNING
Position yourself clear of all danger zones.

3. Drain the **PRIMARY** air tank (also known as the wet tank) completely. The tank is located at front of the coach, on the R.H. side. Make sure tank has green air lines attached to the tank.

- Pressure in front circuit tank and rear circuit tank should drop to 70 PSI (480 kPa) due to the four-circuit protection valve design. Pressure in third circuit tank should remain at 110 PSI (760 kPa).

NOTE
Pressure in suspension system will drop to 0 PSI when the primary air tank is drained because it is directly fed from this tank. Suspension pressure gauge visible through the dash display, Gauges 5/6.

4. Start coach and fill air system. Drain **PARKING BRAKE** tank. This tank is part of three tanks located above the drive axle, in the middle of the coach. It is the one with all yellow hoses connected to it. Pressure in front circuit tank and rear circuit tank should drop to 70 PSI, warning telltale lights come on. Suspension will remain at 70 PSI, third circuit will remain at 110 PSI.

* Picture is for reference only. Depending of year model, tank order maybe different.

5. Drain **FRONT** circuit tank completely, this tank is located in at front of the coach, on the L.H. side.

- Confirm that the front circuit is at 0 PSI and that the rear circuit is at 70 PSI. Pressure in the third circuit tank should remain at 110 PSI.

6. Have an assistant make and hold a service brake application. Check that the rear brakes are applied and that the stop lights are activated. Release the application.
7. Start the engine and build up full pressure again.
8. Drain the **REAR** circuit tank, this tank is part of three tanks located above the drive axle and is the largest of the three. It is the one with green hoses connected to it.

* Picture is for reference only. Depending of year model, tank order maybe different.

- Confirm that rear circuit is at 0 PSI and that front circuit is 70 PSI. Pressure in the third axle tank should remain at 110 PSI. Warning telltale lights are ON and parking brake remain released.

NOTE
Draining via the four-circuit protection valve is quite normal and should not be interpreted as leakage. This drainage occurs from the center of the FCPV and only after Rear circuit pressure drops below 45PSI. Refer to Description, Design and Function/B13R, Four-Circuit Protection Valve annexed hereafter.

9. Have an assistant make and hold a service brake application. Confirm that the front brakes and the 3rd axle brakes are applied.
10. Release the application and confirm that the brakes release completely. Make a second application; two applications are required to confirm adequate reservoir reserve capacity.
11. Start the engine and build up full pressure again.

12. Drain the **THIRD** circuit tank, this tank is part of three tanks located above the drive axle in the middle of the coach. Confirm that the third circuit tank is at 0 PSI and that front and rear circuit pressure is 70 PSI due to four-circuit protection valve design.

* Picture is for reference only. Depending of year model, tank order maybe different.

13. Apply Parking Brake. Start coach and fill air system completely. Apply foot brake repeatedly until blocking valve opens. Blocking valve is located at driver's position lower right below the parking brake. Blocking valve should release at 58 PSI (400 kPa).

NOTE: The parking brake and/or blocking valve will not set automatically when Front and Rear circuit tanks are drained. This safety function allows the driver to use the parking brake as an emergency brake and apply the spring brakes slowly to prevent rear wheel locking.

Find details in Appendix "K" – Emergency brake system - sections 5.7.1 to 5.7.3- Compliance testing for FMVSS 121.

Additional details found in Brakes FMVSS 121/ CMVSS 121 Approval Volvo 9700 USCAN Section 8.2.2.