Refers to Products in the Asia Pacific Region Only

HENDRICKSON

BUS AIR SUSPENSIONS

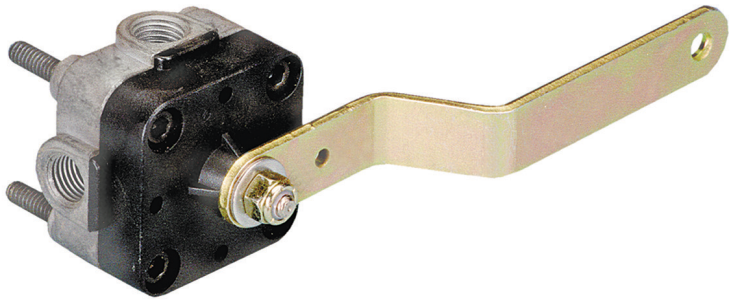
CHINA ONLY

TECHNICAL BULLETIN

No: 97117-133

Subject: *Dual HCV Installation*

Date: July 2005 Rev: B



Ride Height
Dual Height Control Valves

Hendrickson does not recommend the use of dual height valves for most applications due to the potential for increased air consumption and the possibility of unevenly loaded air springs.

Although the Hendrickson suspension is generally equipped with only one height control valve, Hendrickson understands that there may be a demand for this configuration in certain applications. Service kits *(Part # 60501-000 and 58994-005)* are available to add a second height control valve on vehicles equipped with only one height control valve. To install a second height control valve proceed with the following installation instructions.

Hendrickson strongly recommends you review your vehicle application and contact Hendrickson Customer Service to obtain authorisation prior to installing dual height control valves on your vehicles, failure to do so will void warranty.

Installation

1. From the point where the main supply line is taken, you should always ensure that there is a pressure protection valve fitted. This will protect the main air supply from the Bus should an air spring, or an air line, be damaged.

2. The use of two (2) height control valves (HCV) requires a high volume of air. It is recommended that the supply line size from the Bus air supply to the height control valves be 1/2" OD nylon tubing. This will ensure that both valves are supplied with sufficient air volume.

Installation Procedure

1. Identify required component, there are two brackets for each valve. Their purpose is as follows:
   a) The upper HCV mounting bracket *(Part # 57975-000*) bolts directly to the chassis. The chassis rail should be pre-drilled by the vehicle manufacturer. The height control valves must be in an identical position on each chassis rail.
   b) The lower HCV linkage bracket attaches to the axle or suspensions cross channel.

   Note: When mounting the valves to the mounting brackets ensure that the valves do not protrude above the top of the chassis flange.

2. Attach the HCVs to the upper mounting brackets (Part # 57975-000) and then attach the brackets to the vehicle's chassis rails. Fasten all bolts to the required torque.

3. Attach airlines to height control valve ports – refer "Figure 1".

4. A locating pin is supplied with each valve

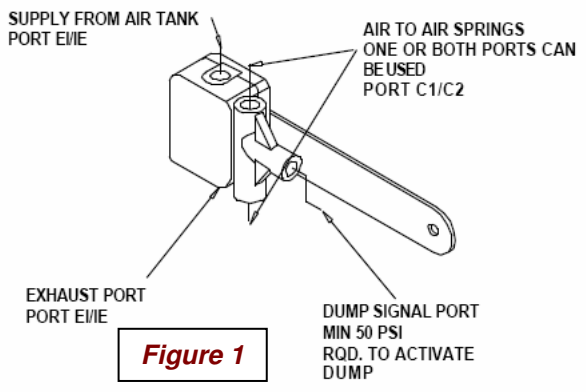


Figure 1

5. to help simplify the installation and ride height adjustment.

Initial Setup

1. When both valves are mounted, complete with link rods and control arms, ensure that:
   a) Both control arms are positioned out as long as possible facing towards the air springs on each side.
   b) Both control arms are of the same height from the top of the chassis. This can be checked by running a straight edge from the top side of the chassis and measuring down to a given point on the control arm. If it is found that the control arms are not the same, loosen the HCV bolts and readjust the HCV.
2. The designed vehicle ride height must be obtained.
3. This ride height is measured when the vehicle brakes have been disengaged and the Bus is on flat ground. See "Figure 2".

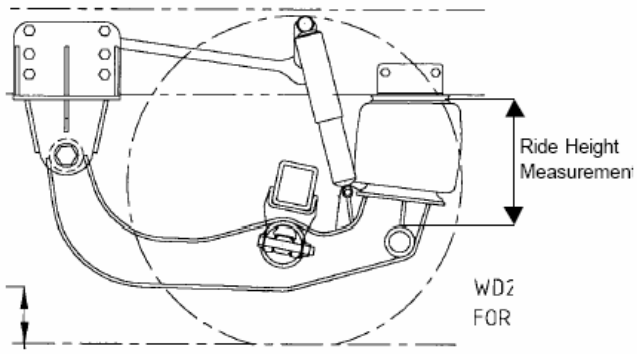


Figure 2

4. When the correct ride height is achieved:
   a) Deflate the suspension in the cab of the vehicle with the pilot valve switch.
   b) Allow the suspension to deflate approximately 30mm.
   c) Reinflate to allow the suspensions to return to the pre-set ride height.

   Note: Ensure that the Bus has sufficient air in its air system.

5. Check that your ride heights, both left and right hand sides, are the same. You can also take a measurement from the concrete pad surface to the underside of the chassis. If this is not correct, adjust your link rod on the side that is not correct.
6.

In the event of pressure loss in the suspension the vehicle can be driven for short distances only at low speed on the bump stops. The vehicle should have been fitted with a brake pressure protection valve so pressure should always be available to the braking system.

7. If the air springs deflate then the following should be checked:
   a) Air supply is sufficient from the compressor.
   b) Pressure protection valve is functioning.
   c) There are no leaks from connections or the height control valve.

   Note: The use of a good quality air filter/dryer system is strongly recommended to provide clean, dry air to the suspension system.

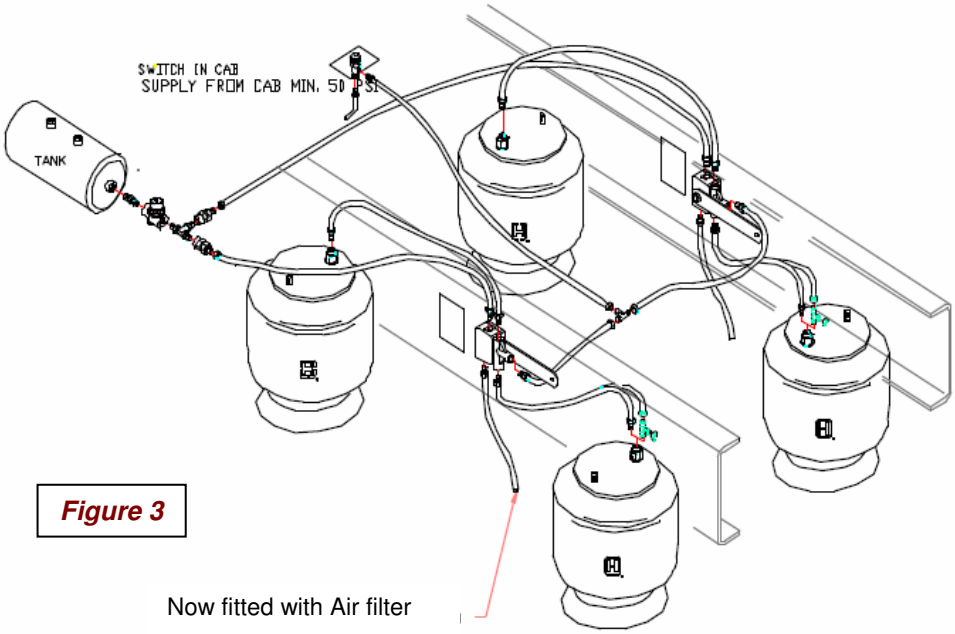


Figure 3

Now fitted with Air filter

Further information may be obtained from
Hendrickson Asia Pacific Pty Ltd
Product Support Department on +61 3 9767 3400