



Installation Instructions

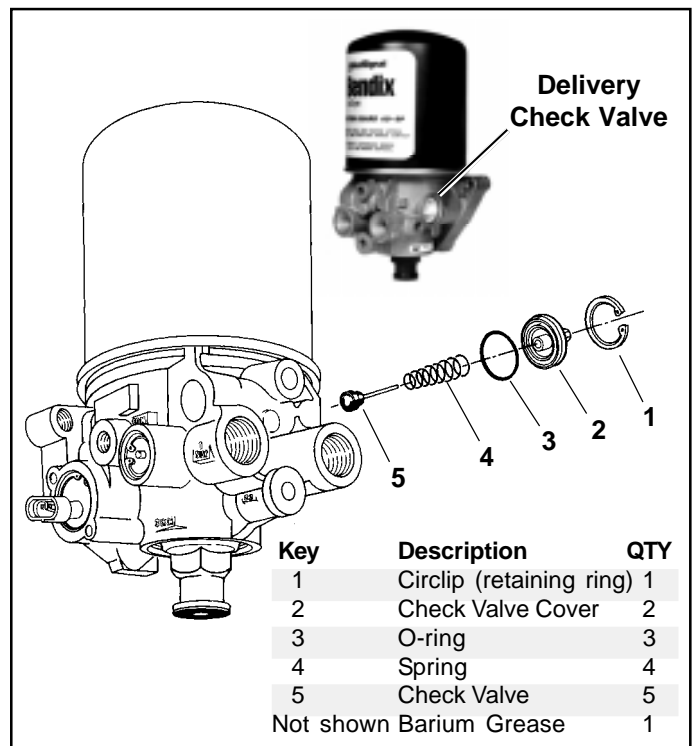
**DELIVERY CHECK VALVE
REPLACEMENT KIT FOR
THE AD-SP AIR DRYER**

**KIT
5005624**

**IMPORTANT! PLEASE READ AND FOLLOW
THESE INSTRUCTIONS TO AVOID
PERSONAL INJURY OR DEATH:**

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.
5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.
6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.
11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.



DISASSEMBLY

1. Using detergent and water clean the air dryer body.
2. Remove the Circlip (1) (retaining ring) and discard.
3. Remove check valve assembly and discard.

CLEANING AND INSPECTION

1. Inspect the bore of the air dryer body. Make certain that the bore is open and free of obstructions. Clean as necessary.
2. Inspect the delivery check valve seat in the air dryer body for damage that would prevent an airtight seal for the new delivery check valve. Replace the air dryer if this condition exists.
3. Inspect the interior and exterior of the air dryer for severe corrosion, pitting and cracks. Replace the air dryer if this condition exists. Superficial corrosion and or pitting on the exterior of the air dryer is acceptable.
4. Check all lines and fittings leading to and from the air dryer for leakage and integrity. Repair or replace any leaking or damaged lines or fittings.

ASSEMBLY

IMPORTANT: Prior to assembly of the kit, coat the o-ring, o-ring groove, check valve and bore with the barium grease supplied in this kit.

1. Install the o-ring(3) on the check valve cover(2).
2. The smaller end of the spring(4) fits into the groove in the valve(5), and then the shaft of the valve is inserted into the valve cover(2) center opening.
3. Install the assembly in the end cover, and hold it in position using the circlip(1) supplied. Make sure that the circlip is fully engaged in its groove.
4. Conduct the *Operation and Leakage Test* below.

OPERATION AND LEAKAGE TEST

Install a test air gauge in the #1 reservoir. Test the delivery check valve by building the air system to governor cut-out and wait one minute until the air dryer completes its purge cycle. Observe the gauge: a rapid loss of pressure could indicate a malfunctioning delivery check valve. Check all lines and fittings leading to and from the air dryer for leakage and integrity. If it is still believed that the delivery check valve may be leaking, conduct the following test:

Build system pressure to governor cut-out and wait for the air dryer to complete its purge cycle (1 minute) and then switch off the engine. Check for leakage at the purge valve by applying a soap solution. Leakage should not exceed a 1" bubble in 1 second. If excessive leakage is observed, re-inspect the check valve and its seat, following the general maintenance precautions above. If the check valve seat is damaged, replace the air dryer.

