

AD-IP AIR DRYER DELIVERY PORT CHECK VALVE KIT

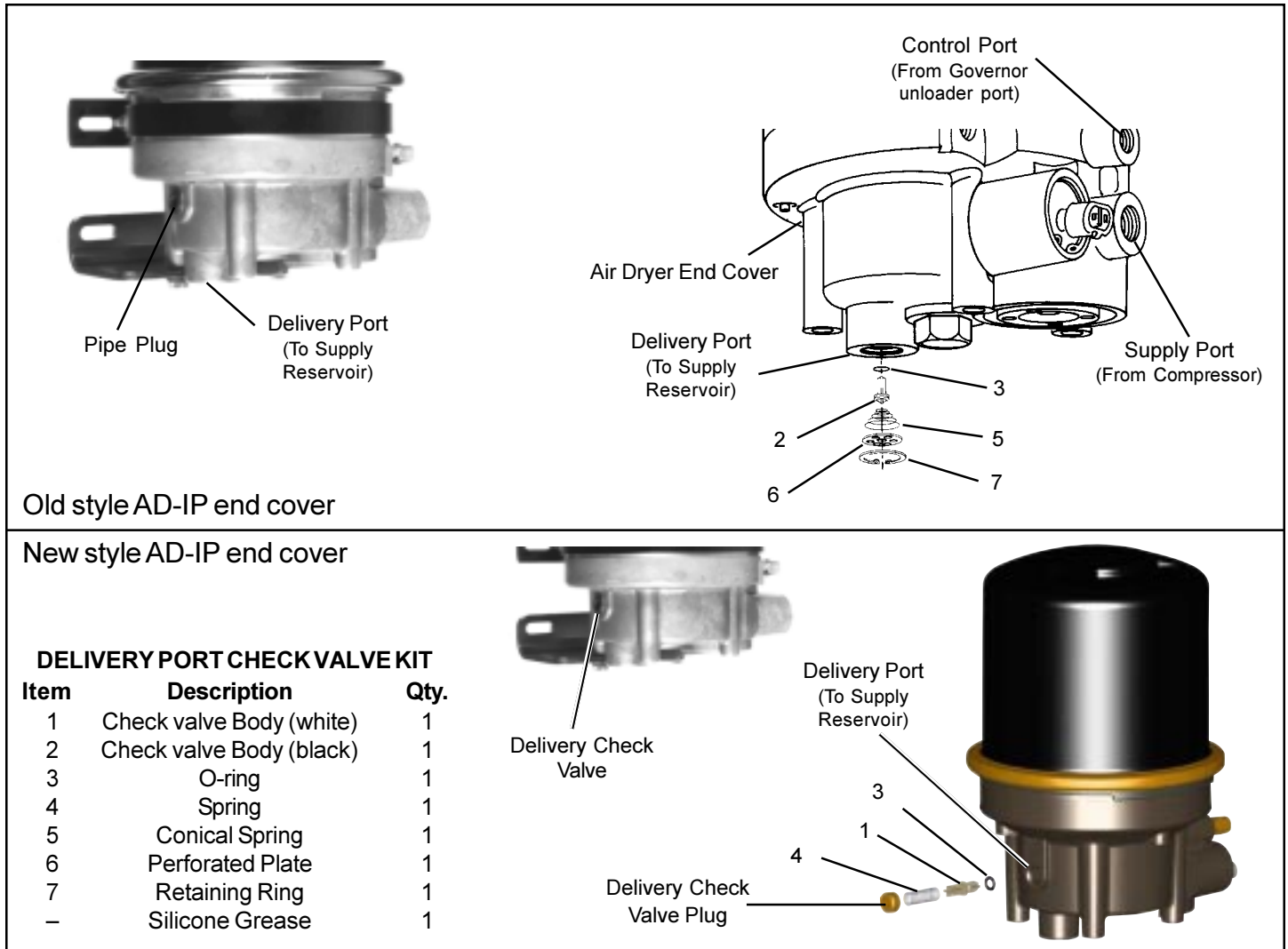


Figure 1 AD-IP Air Dryer Delivery Port Check Valve Kit

KIT DESCRIPTION

This kit is intended for use in servicing the delivery port check valve components in a Bendix AD-IP air dryer. Note this kit services both the new and old style end covers.

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.**

VEHICLE PREPARATION

1. Park the vehicle on a level surface and prevent movement by means other than the brakes.
2. Drain all reservoirs to 0 p.s.i. (0 kPa).
3. Clean the exterior of the air dryer end cover.
4. Remove the delivery line from the AD-IP delivery port.
5. Remove the air line fitting from the AD-IP delivery port.

DISASSEMBLY

General

This maintenance kit does not generally require removal of the AD-IP air dryer from the vehicle however if removal of the air dryer is necessary adhere to the following caution.

Caution: While performing service on the AD-IP air dryer, it is not recommended that a clamping device (vise, C-clamp, etc.) be used to hold any die cast aluminum component as damage may result. To hold the body, install a pipe nipple in the supply port and clamp the nipple into a vise.

1. Remove the delivery check valve plug or retaining ring(7) from the air dryer end cover delivery port.
2. Remove and discard all check valve components such as perforated plate(6), spring(4 or 5) and check valve body(1 or 2) with o-ring(3).

CLEANING & INSPECTION

1. Using a clean rag, wipe the delivery port clean. Clean any thread sealant from the pipe threads in the delivery port and the air line fitting.
2. Inspect for physical damage to the end cover delivery port and the check valve seat in the port.
3. Inspect all air line fittings for corrosion and replace as necessary.

ASSEMBLY

Identify the components that are being installed are correct for the air dryer cover style. The check valve body and spring are not interchangeable. Note: The delivery port is on the bottom of the old style end cover and the side for the new style.

1. Lubricate the o-ring(3) and check valve body(1 or 2) with the silicone grease packaged in this maintenance kit.
Note: Use only the silicone grease contained in this kit.
2. Install the o-ring(3) on the check valve body(1 or 2) and push the o-ring down, over the 3 guide lands until it is in the o-ring groove of the check valve body.
3. Install the check valve spring(4 or 5) on the check valve body(1 or 2) so that the SMALL coils of the spring slip over the check valve body. Install the assembled check valve body, o-ring, and spring in the end cover delivery port so that the o-ring rests on its seat in the end cover and the spring is visible.
4. Old style end cover: Install the perforated plate(6), in the end cover delivery port and secure the check valve assembly using the retaining ring(7). Make certain the retaining ring is fully seated in its groove in the end cover delivery port.
New style end cover: Install the delivery check valve plug in the delivery port.
5. Before placing vehicle back into service, perform the TESTING stated below.

TESTING

Check for proper operation. If the air dryer cycles rapidly review the installation procedures to ensure proper kit installation.