

Installation Instructions



BENDIX® BX-2150™ COMPRESSOR INLET CHECK VALVE KIT

Adapter Required

Adapter Not Required

Identify New Cylinder Head by Noting Presence of Plugged Boss Here

Inlet Check Valve Kit

Bendix® BX-2150™
Compressor

Kit Contents		
Item No.	Description	Qty.
1	Gasket	2
2	Check Valve	1
3	Check Valve Seat	1

Figure 1 – Bendix® BX-2150™ Compressor Inlet Check Valve Kit Contents

GENERAL SAFETY GUIDELINES



WARNING! PLEASE READ AND FOLLOW THESE INSTRUCTIONS



TO AVOID PERSONAL INJURY OR DEATH:

When working on or around a vehicle, the following guidelines should be observed **AT ALL TIMES**:

- ▲ Park the vehicle on a level surface, apply the parking brakes and always block the wheels. Always wear personal protection equipment.
- ▲ Stop the engine and remove the ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. 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.
- ▲ 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.
- ▲ If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with a Bendix® AD-IS® air dryer system, a Bendix® DRM™ dryer reservoir module, or a Bendix® AD-9si® air dryer, be sure to drain the purge reservoir.
- ▲ Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
- ▲ Never exceed manufacturer's recommended pressures.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.
- ▲ Never connect or disconnect a hose or line containing pressure; it may whip and/or cause hazardous airborne dust and dirt particles. Wear eye protection. Slowly open connections with care, and verify that no pressure is present. Never remove a component or plug unless you are certain all system pressure has been depleted.
- ▲ Use only genuine Bendix® brand replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, wiring, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
- ▲ Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.
- ▲ Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
- ▲ For vehicles with Automatic Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.
- ▲ The power **MUST** be temporarily disconnected from the radar sensor whenever any tests **USING A DYNAMOMETER** are conducted on a vehicle equipped with a Bendix® Wingman® system.

It is **extremely important** that Bendix® inlet adapter part number 297871 be installed on the old-style head. Failure to install the inlet adapter on compressors equipped with the old style cylinder head will result in compressor damage and eventual failure. **Note:** Inlet adapter part number 297871 is not required on the new-style head but can be installed in error without harm to the compressor.

A warning tag is installed on replacement Bendix® BX-2150™ compressors which provides the information given here.



1. This kit may be installed on naturally aspirated single cylinder compressors only. **DO NOT INSTALL THIS KIT WHEN THE COMPRESSOR INLET IS PRESSURIZED BY THE ENGINE TURBO OR SUPER CHARGER.**
2. Prior to installing this kit refer to Figure 1 and determine the style of head being used.
3. If the compressor was not already equipped with an inlet check valve (ICV) and this kit is being installed on the compressor for the first time;
 - A. For old-style heads, Bendix inlet adapter part number 297871, gasket 243430 and attachment hardware is required but not supplied in this kit (See Figure 1).
 - B. Failure to install adapter part number 297871 with an old-style head **WILL RESULT IN COMPRESSOR DAMAGE.**

KIT INSTALLATION

1. Remove the two 5/16"-18 cap screws, along with the lock washers that secure the existing inlet fitting or air strainer to the compressor.
2. Remove the inlet fitting or air strainer and its gasket.
3. Thoroughly clean the gasket surfaces of the compressor inlet on a new-style head (NSH), or the inlet adapter on the old-style head (OSH), if so equipped, and the inlet fitting or air strainer.
4. Install the inlet check valve (ICV) components in the manner and sequence illustrated in Figure 1, making certain that:
 - A. The locating pin holes in the check valve (2), gasket (1) and the compressor inlet (NSH) or the inlet adapter (297871) (OSH), if so equipped, are aligned and will mate with the corresponding pin installed in the check valve seat (3).

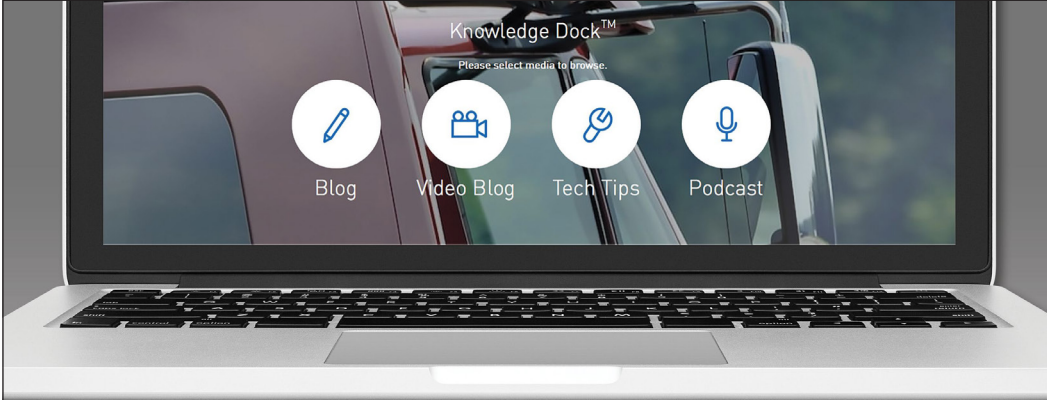
- B. One of the two gaskets furnished (item 1) is installed between the compressor inlet (NSH) or the inlet adapter (297871) (OSH), if so equipped, and the check valve (2). **Note:** Both gaskets furnished in this kit are identical and may be used in either position in the ICV assembly. However, **DO NOT SUBSTITUTE OTHER INLET GASKETS** in this position. The thickness of the gaskets furnished contribute to the required valve travel.
 - C. The free end or tip of the ICV (2) is positioned over the machined stop in either the compressor inlet (NSH) or the inlet adapter (297871) (OSH).
 - D. No gasket is used between the check valve (2) and check valve seat (3).
 5. Secure the ICV components and inlet fitting or air strainer to the compressor inlet (NSH), or inlet adapter (OSH) using two lock washers and 5/16"-18 cap screws. Torque both cap screws to 125-150 in-lbs (14.12-16.95 Nm).
 6. Perform the Operation Test that follows.

OPERATION TEST


1. Before placing the vehicle in service, close all reservoir, drain cocks, start the engine and build air pressure.
2. System air pressure should rise to governor cut-out and the compressor should unload in a normal fashion. Should the system fail to build, inspect the ICV installation paying particular attention to the position of the check valve (2), inlet adapter integral stop (297871) and check valve seat (3) relative to the compressor inlet (NSH) or the inlet adapter (OSH). (See Figure 1)



A single cylinder compressor's oil control can be adversely affected when an ICV is used in conjunction with an air dryer or aftercooler that vents the discharge line during the purge mode. The Bendix® AD-9® air dryer can be used with no ill affects due to its integral "Turbo Cut-Off Valve" which prevents discharge line venting during the purge mode. For additional technical information refer to Bendix Service Data sheet SD-01-331 available on bendix.com.



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