# **Installation Instructions**



# BENDIX<sup>®</sup> BX-2150<sup>™</sup> COMPRESSOR UNLOADER KIT

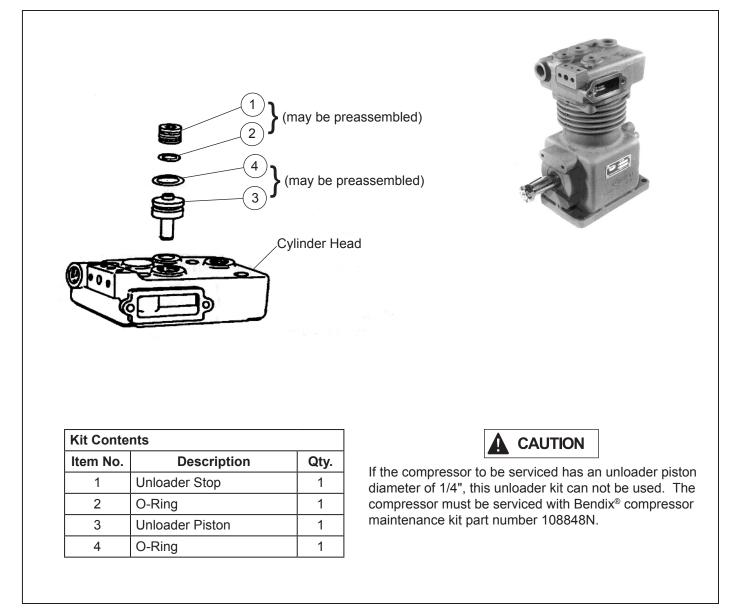


Figure 1 – Bendix<sup>®</sup> BX-2150<sup>™</sup> Compressor Unloader Kit Contents

#### DESCRIPTION

This kit contains all of the components needed to service the unloader pistons on a Bendix<sup>®</sup> BX-2150<sup>™</sup> compressor.

#### DISASSEMBLY

- 1. Using a 3/16" Allen<sup>®</sup> wrench, remove and discard the unloader stop (1) and o-ring (2) assembly from the head.
- With a pair of needle nose pliers, reach into the unloader cavity. Grip the boss on the top of the unloader piston (3). Remove and discard the unloader piston and o-ring (4).

#### 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<sup>®</sup> AD-IS<sup>®</sup> air dryer system, a Bendix<sup>®</sup> DRM<sup>™</sup> dryer reservoir module, or a Bendix<sup>®</sup> AD-9si<sup>®</sup> 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.
- ▲ 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<sup>®</sup> 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<sup>®</sup> Wingman<sup>®</sup> system.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

### INSPECTION

- 1. Inspect the inlet bushing for nicks or scratches. A lapping stone may be used to improve the surface if necessary.
- 2. If replacement of the inlet bushing is required, this part can be obtained through a local Bendix outlet. For instructions, refer to SD-01-331.

## ASSEMBLY

- Install the unloader piston and o-ring assembly (3 & 4) into the unloader cavity in the head. The long stem of the unloader piston enters first and goes through the center of the unloader spring. Note: The o-ring on the unloader is prelubricated and does not require additional lubrication prior to assembly.
- Install the unloader stop and o-ring assembly (1 & 2) using a 3/16" Allen<sup>®</sup> wrench. Torque to 175-225 in-lbs.

# CHECK FOR COMPRESSOR OPERATION

- 1. Start engine and observe the system pressure gauge to ensure the compressor is pumping. Observe that the compressor unloads (stops pumping) at the governor cut-out setting.
- 2. Make several light brake applications until the governor cut-in setting is reached. Observe that the air is exhausted from the unloader piston cavity allowing it to move up and the compressor returning to the loaded or pumping air mode.

# AIR LEAKAGE TEST

The unloader piston can be checked for leakage as follows: Build up the air system to governor cut-out and shut off the engine. Listen for escaping air at the compressor intake. To pinpoint leakage, apply a small amount of oil around the unloader piston. No leakage is permitted. Apply oil or soap solution around the threads of the unloader stop assembly on the top of the head.



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