

Installation Instructions



AIR COMPRESSOR FITTINGS KIT

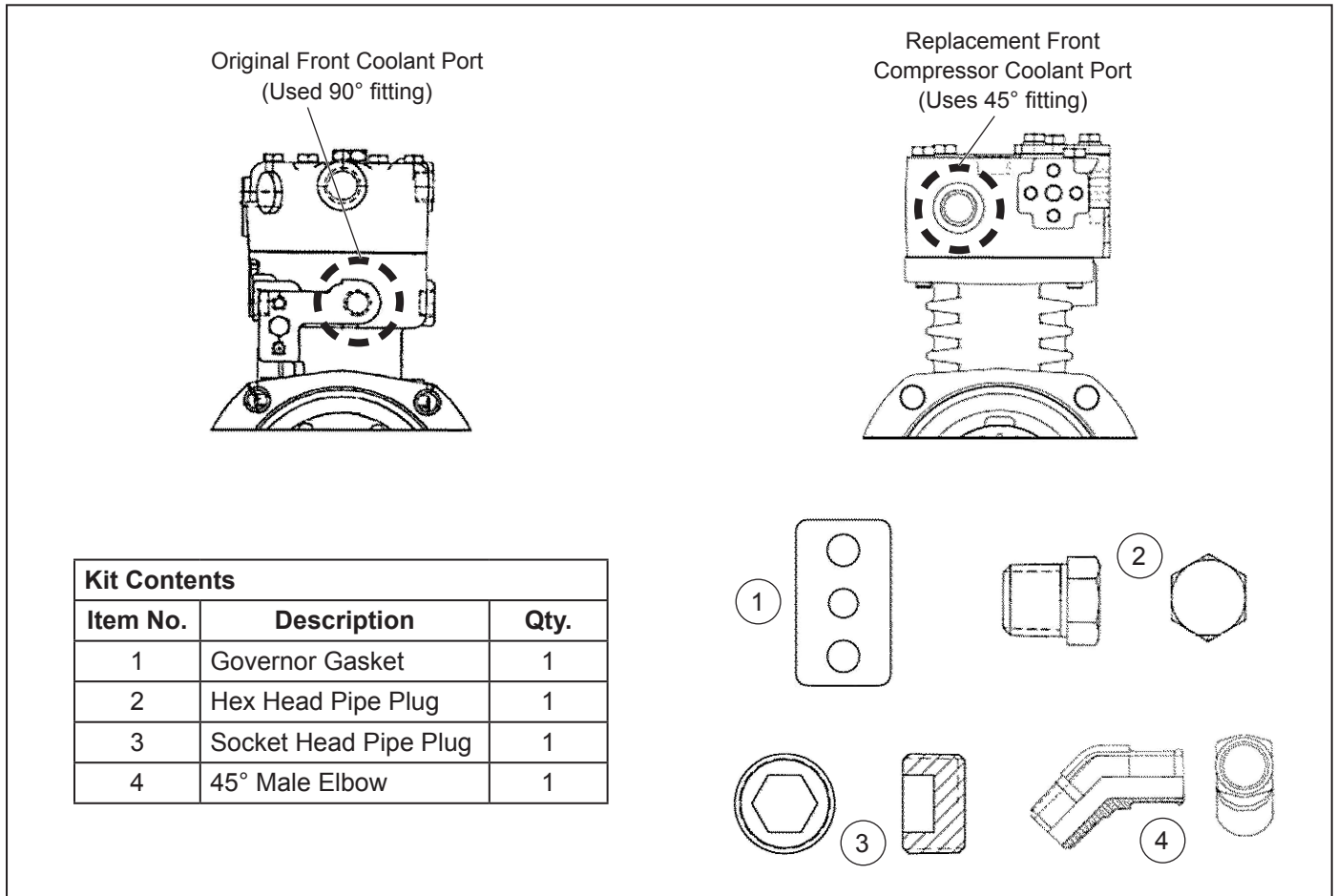


Figure 1 – Coolant Port Original and New Locations

VEHICLE PREPARATION

These instructions are general and are intended to be a guide. In some cases additional preparations and precautions are necessary. In all cases follow the instructions contained in the vehicle maintenance manual in lieu of these instructions. Follow all industry standard safety precautions, including, but not limited to, the precautions on page two of this document.

1. Block the wheels of the vehicle and drain the air pressure from all the reservoirs in the system.
2. Remove as much road dirt and grease from the exterior of the compressor as possible.
3. Drain oil and coolant from the engine as necessary.
4. Remove the air supply and delivery hoses, marking them to assist in re-installation. Continue with the lubrication oil and coolant lines to the compressor. Remove the governor (retaining the governor bolts and washers).

5. Remove and retain all the current fittings used on the compressor, except the 90° coolant fitting in the cylinder head. (See Figure 1.)

INSTALLATION

Use the torque specification chart on this page throughout this procedure.

1. Install any supporting bracketing on the compressor in the same position noted and marked during removal.
2. Install the discharge, inlet, and governor adapter fittings, if applicable, in the same position on the compressor noted and marked during disassembly. Make certain the threads are clean and the fittings are free of corrosion. Replace as necessary. See the Torque Specifications for various fitting sizes and types of thread.
3. Inspect all air, oil, and coolant lines and fittings before reconnecting them to the compressor. Make certain o-ring seals are in good condition. Check all hose clamps.



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.
- ▲ 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.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

TORQUE SPECIFICATIONS

Assembly Torques in inch pounds (in-lbs)

Unloader & Oil Port Fittings

1/8"-27 NPT 2 - 3 TFFT¹

Water and Air Port Fittings

1/2"-14 NPT 2 - 3 TFFT¹

¹Note: TFFT = Turns From Finger Tight

4. Position the governor gasket (1) provided in the kit between the governor and the cylinder head mounting pad. Torque the bolts to 175-225 in-lbs.
5. In the case of the front coolant port, the 45° male elbow (4) supplied in the kit will be used to allow for the revised cylinder head port to be used with the existing hoses.

RETURNING THE VEHICLE TO SERVICE

Before returning the vehicle to service, perform the Operation and Leakage Tests specified below. Pay particular attention to all lines reconnected during installation and check for air, oil, and coolant leaks at compressor connections. Also, check for noisy operation and repair and/or replace as necessary.

OPERATION & LEAKAGE TESTS

1. Start the engine and note that air system steadily builds pressure.
2. With system air pressure increasing, check for cylinder head gasket air leakage by applying a soap solution around the cylinder head and check for air leakage. A one-inch bubble in one minute is acceptable.
3. Allow air system pressure to build and note that the compressor unloads properly at the specified governor cut-out pressure. Repeat this test 3 times noting that the compressor unloads at approximately the same pressure each time. If the compressor fails to unload by at least 150 psi system pressure, check all air lines to and from the governor. Make certain each line is clear (unobstructed) and is not kinked or leaking. Repair or replace the governor as needed.
4. More complete compressor performance tests are provided in the Bendix Service Data sheet. This publication is available online at bendix.com or by calling 1-800-AIR-BRAKE (1-800-247-2725), option 5.



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