

# Installation Instructions



## BENDIX® BA-922® AIR COMPRESSOR RETROFIT KIT

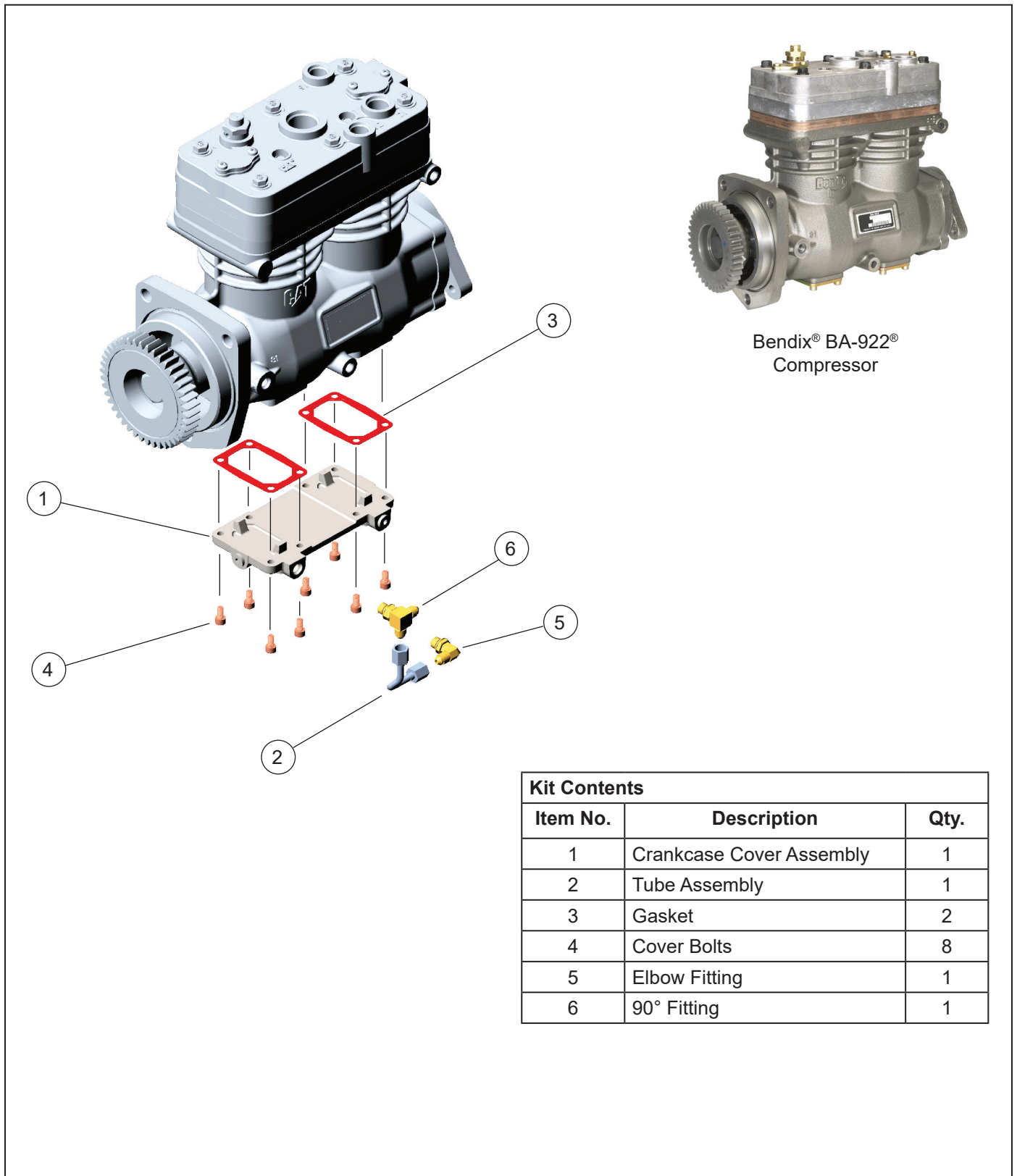


Figure 1 – Retrofit Kit Contents



## 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**:

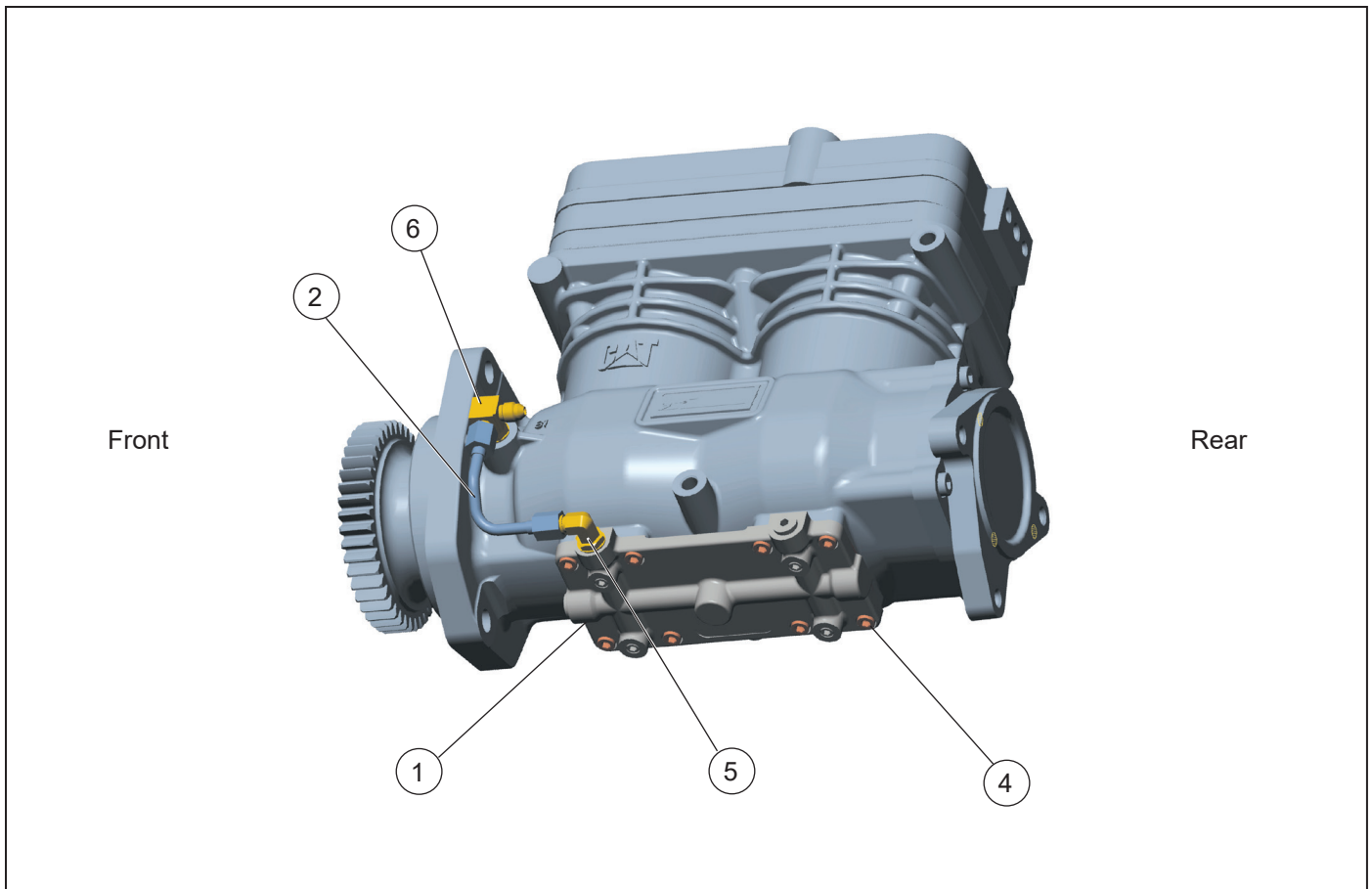
- ▲ Park the vehicle on a level surface, apply the parking brakes and always block the wheels. Always wear personal protection equipment.
- ▲ Stop the engine and remove the ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and 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, a Bendix® AD-9si®, AD-HF®, or AD-HF®i 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.

## INSTALLING SEAL KITS

1. Read and follow the General Safety Guidelines contained in this document. Removal of the compressor from the vehicle is not required when installing this kit.
2. Drain the oil from the compressor.
3. Remove the eight crankcase cover bolts (4) securing the crankcase covers (1) to the crankcase. Using a soft mallet, gently tap the crankcase covers (1) to break the gasket (3) seal. Remove and discard the crankcase covers and gaskets. Note that the compressor being serviced has two small crankcase covers that are being replaced by one larger crankcase cover.
4. Clean the gasket surfaces on the crankcase making certain to remove adhering gasket material.
5. Position the crankcase cover gaskets (3) on either the crankcase or crankcase cover assembly (1) and install the crankcase cover assembly (1) on the crankcase. Ensure the crankcase cover assembly is positioned so that the open port is toward the front of the compressor. Secure the cover using the eight cover bolts (4). Torque the bolts to 62-71 in-lbs using a crossing pattern.
6. Install the 90° fitting (6) into the oil return port.
7. Install the elbow fitting (5) into the oil passage port on the crankcase cover assembly.
8. Install the tube assembly (2), connecting the 90° fitting (6) and the elbow fitting (5).
9. *Follow the steps in the Returning the Vehicle to Service section.*

## RETURNING THE VEHICLE TO SERVICE

1. Run the engine briefly to be sure oil is flowing freely through the supply line.
2. Before returning the vehicle to service, perform the *Operation and Leakage Tests* specified in this manual. 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.



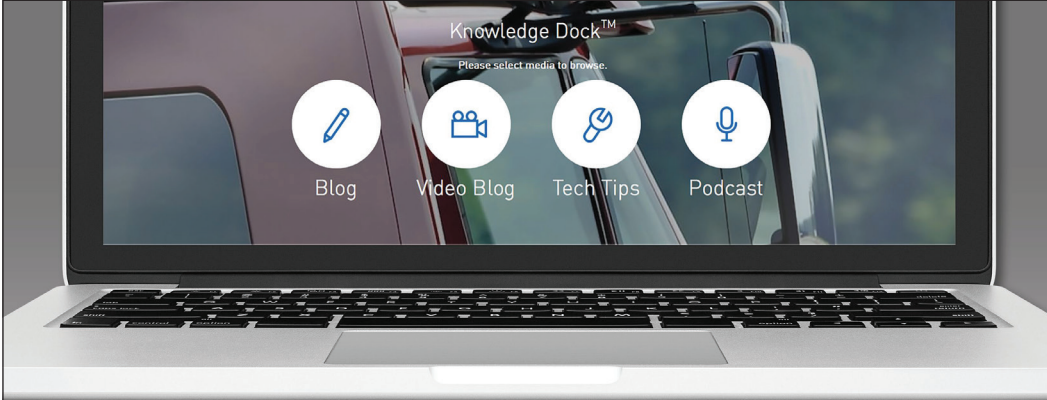
**Figure 2 – Retrofit Kit Installation**

### **OPERATION & LEAKAGE TESTS**

1. Start the engine and note that the air system steadily builds pressure.
2. With system air pressure increasing, check for cylinder head gasket air leakage. Apply a soap solution around the cylinder head. Check the gaskets between the cylinder head, cooling plate, and valve plate assembly for air leakage.

No leakage is permitted. If leakage is detected, try re-torquing the head bolts after draining all air pressure. Replace the compressor if replacing the head gasket has not resolved the leakage problem.


3. Allow air system pressure to build and note that the compressor unloads properly at the specified governor cut-out pressure. Repeat this test three 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 not kinked, or leaking. Repair or replace the governor as needed. If an unloader kit was also installed, recheck the installation.
4. More complete compressor performance tests are provided in the Bendix Service Data sheet. This publication is available online at [bendix.com](http://bendix.com) or by calling 1-800-AIR-BRAKE (1-800-247-2725), option 5.



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