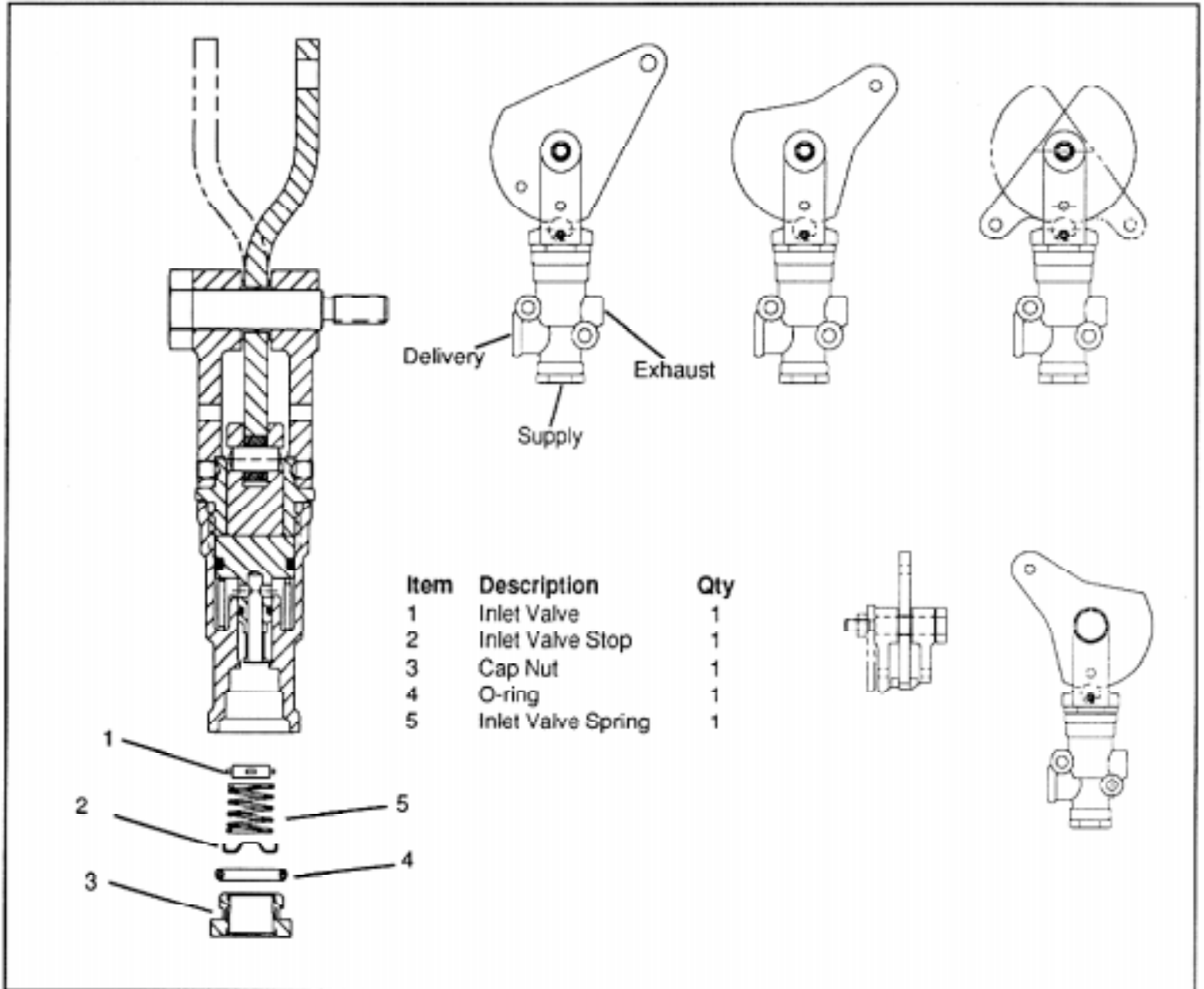




Installation Instructions

KIT PC. No.
109337

TW-12 CONTROL VALVE MAINTENANCE KIT



TW-12 CONTROL VALVE

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 & REMOVAL OF THE TW-12

NOTE: It may not be necessary in some installations to remove the TW-12 from the vehicle to service with the Cap Nut Kit.

1. Apply the parking brake. Identify and disconnect the supply, exhaust and delivery lines from the TW-12 and plug the ends of each.
2. Disconnect the transmission lever linkage from the TW-12 cam.
3. Remove the valve from the vehicle by removing the mounting screws.

DISASSEMBLY

1. Using a 7/8" wrench remove and discard the Cap Nut(3), O-ring(4), Inlet Valve Stop (2), Inlet Valve Spring(5) and Inlet Valve(1).

ASSEMBLY

1. Prior to assembly lubricate bores, o-ring and threads with lubricant BW-663-M (Lubriplate 930-2). Using the kit contents install the Inlet Valve(1) into the supply port of the valve body. Place the Inlet Valve Spring(5) over the Inlet Valve(1). The Inlet Valve Stop (2) is then placed over the Inlet Valve Spring.
2. Place O-ring(4) over the Cap Nut(3) as shown. With a 7/8" wrench secure the Cap Nut(3) into the body. Torque to 50-150 inch pounds.

INSTALLATION

CAUTION: Do not fill reservoir with engine on. Due to the complexity of the hydraulic park system, extensive bleeding of the system is required.

1. Reinstall the valve and cover plate to mounting bracket on the vehicle.
2. Remove plugs from the exhaust, delivery and supply lines and connect each to its corresponding port.
CAUTION: When connecting the supply line secure the Cap Nut with a 7/8" wrench to prevent overtightening of Cap Nut when tightening the supply line fitting.
3. Fill the brake pump reservoir.
4. With the vehicle wheels blocked, start the engine and inspect for leaks. Release the parking brake. Turn the engine off and bleed the chambers until they reach a full application. Replenish the reservoir. **DO NOT APPLY THE PARKING BRAKE.** Start the engine and run for 15 seconds, turn the engine off and bleed the chambers until they reach a full application. Replenish the reservoir.
5. With the engine on, cycle the valve every 20 seconds for 10 minutes. Release the brakes, turn the engine off, bleed the chambers, apply the parking brake and replenish reservoir to full mark.

TEST

Before placing the vehicle in service, check the system for correct operation, possible leakage and properly filled reservoirs.

