Installation Instructions



BENDIX® BRAKE VALVE TREADLE PLUNGER KIT



Figure 1 – Bendix® Brake Valve Treadle Plunger Kit

A

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.

DESCRIPTION

This kit contains the components necessary for the field modification of the Bendix® treadle assemblies. Upon completion of the installation, the removed plunger and the completed campaign documentation must be submitted to Bendix CVS for processing.

Be sure to read and follow all safety precautions outlined in this document before performing any service on the vehicle.

REMOVAL (See General Safety Guidelines.)

- 1. Park the vehicle on a level surface and block the wheels.
- 2. Remove and discard the cotter pin (1) or roll pin (3) from the treadle fulcrum pin. A punch will be needed to remove the roll pin. Do not remove the cotter pin from the roller pin.
- 3. Remove the fulcrum pin from the treadle. Since the fulcrum pin is lubricated, be sure to set it aside in an area free from contamination.
- 4. Remove and retain the treadle and nylon bushing (if included).
- 5. Carefully remove the rubber boot that covers the plunger (2). Retain it for reinstallation.
- 6. Pull up on the plunger (2) and remove it from the mounting plate and brake valve. The plunger must be returned to Bendix per the campaign guidelines.

CLEANING AND INSPECTION

1. Wipe away any dirt from the mounting plate and the plunger bore areas.

INSTALLATION

The kit supplies two types of pins (roll or cotter) — use the correct style for your treadle. *Refer to Figure 1.*

- 1. Verify the plunger removed is the same size as the plunger (2) included in this kit. <u>Do not</u> use this kit if the plunger removed is not the same length.
- 2. Using the lubricant (4) provided, lubricate the surface of the mounting plate where the plunger comes in contact.
- 3. Lubricate the plunger (2) and insert into the mounting plate bore with the flat surface of the plunger pointed up. Position the (white, blue, or green) painted dot so that it is visible.
- 4. Install the rubber boot on the plunger. Ensure the boot is positioned properly in its seat.
- Lubricate the fulcrum pin and carefully reassemble the fulcrum pin, nylon bushing (if present), treadle, and mounting plate.

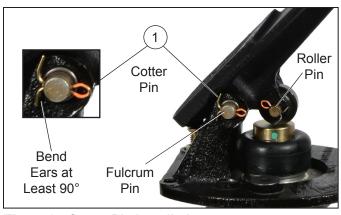


Figure 2 - Cotter Pin Installation

- 6. Secure the fulcrum pin into position with the cotter pin (1) or roll pin (3) included. If installing the cotter pin, bend each ear of the pin at a minimum of 90° as shown in *Figure 2*. If installing a roll pin, use a roll pin punch and hammer to install the roll pin properly. Be sure to install the same type of fastener as the one removed.
- 7. Test the vehicle to ensure the brake treadle is functioning properly before returning the vehicle to service.





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