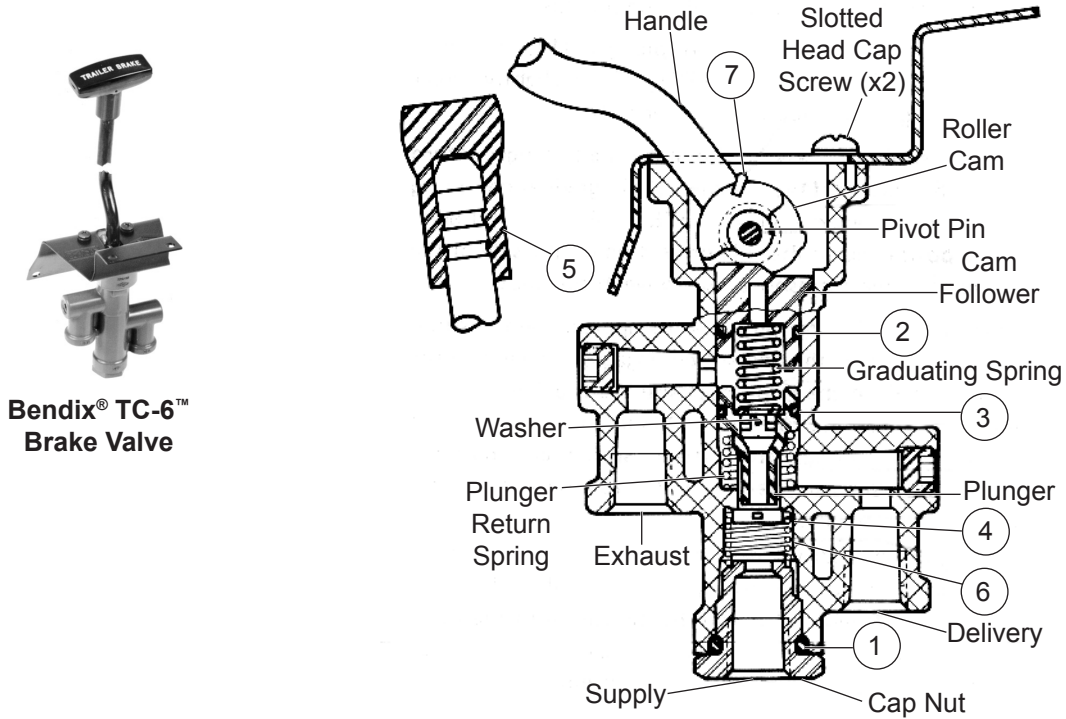


Installation Instructions



BENDIX® TC-6™ BRAKE VALVE MAINTENANCE KIT



**Bendix® TC-6™
Brake Valve**

Items circled are included in kit.

Figure 1

Kit Contents		
Item No.	Description	Qty.
1	O-Ring (Large)	1
2	O-Ring (Medium)	1
3	O-Ring (Small)	1
4	Inlet Valve	1
5	Knob	1
6	Inlet Valve Spring	1
7	Torsion Spring	1
8	Lubricant	1



Figure 1 – Bendix® TC-6™ Brake Valve Maintenance 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, 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.
- ▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.
- ▲ 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.

REMOVAL

Secure the vehicle with spring brakes or blocks. Drain the reservoir which supplies the Bendix® TC-6™ brake valve. Remove the fasteners which secure the mounting bracket to the panel. Disconnect the connecting air lines. Remove the valve.

DISASSEMBLY

Place the lever in a vise and with a firm pull, the rubber handle (5) may be removed. Remove the two slotted head cap screws which hold the mounting bracket in place as shown in Figure 1 and remove the mounting bracket.

Drive the pivot pin out of the body with a drift punch. The handle, roller cam, and torsion spring (7) may now be removed. Remove the roller cam from the handle.

The cam follower, graduating spring, plunger, and plunger return spring may now be removed through the top of the valve. Care should be taken not to lose the washer.

Place the body in a soft-jawed vise and remove the cap nut. Remove the o-ring (1) from the cap nut. The inlet valve spring (6) and the inlet valve (4) may now be removed.

CLEANING AND INSPECTION OF PARTS

Clean all metal and plastic parts with mineral spirits or equivalent solvent. Wipe all o-rings and rubber parts dry. Replace any which show signs of wear or deterioration. Inspect valve seats for nicks or burrs and remove any deposits. Check all springs for distortion, cracks, and corrosion. Replace all parts not considered serviceable after inspection.

ASSEMBLY

Before assembling the valve, all bores, cam, pivot pin, plungers, and o-rings should be lubricated with silicone lubricant (8).

Place the body in a soft-jawed vise with the ports pointing up. Place the inlet valve (4) in the inlet cavity and install the inlet valve spring (6). Place the o-ring (1) on the cap nut and assemble the cap nut in the body. Torque the cap nut to 50-150 in-lbs.

Install the o-rings (2) & (3) on the plunger and cam follower.



O-ring (2) is slightly larger than o-ring (3) and goes on the cam follower.

Reverse the position of the body in the vise and install the plunger return spring, plunger, washer, graduating spring, and cam follower. *NOTE: The cam follower must be positioned so that the projection on the side of the body matches the corresponding groove in the body.*

Position the torsion spring (7) in its approximate position in the body so that the end which engages the handle rests against the side of the body opposite the bracket retaining screw holes. Place the roller cam in position and insert the pivot pin through the torsion spring and partially through the roller cam, leaving room to insert the wedge shaped end of the handle.

With a small screwdriver or similar tool, force the tang of the torsion spring towards the opposite wall of the body far enough so the handle may be inserted into the roller cam. The pivot pin may then be tapped on through until the ends of the pin are flush with either side of the body.

Place the mounting bracket in position and secure with two slotted head cap screws. Place the rubber knob (5) back on the handle.

OPERATING AND LEAKAGE CHECK

Before re-installing the valve in the vehicle, clamp the bracket in a vise and connect a 100 psi air supply to the supply port. Connect a small volume (90 cubic inch) and a gauge to the delivery port.

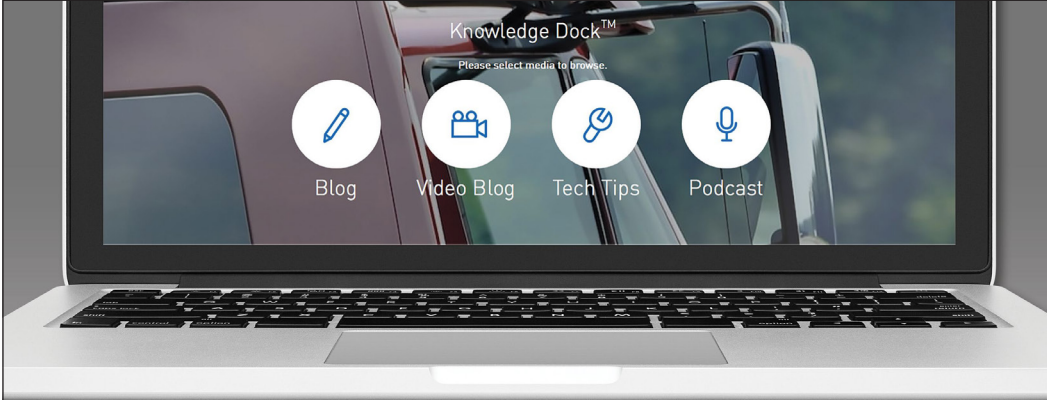
When the operating lever is moved to the fully applied position, the gauge should register full reservoir pressure. Intermediate positions should deliver proportional intermediate pressures.

With the valve in the release position, no pressure should register on the gauge. Coat the exhaust port with a soap solution. Leakage should not be greater than a 1" bubble in 5 seconds.


With the valve fully applied, leakage should not be greater than a 1" bubble in 3 seconds.

INSTALLING

Before re-installing, inspect connecting air lines for integrity and foreign material. Replace lines if necessary. Reconnect air lines. Replace fasteners securing bracket to panel. Recharge the system and check the operation of the valve.



Trucking moves fast. Move faster.
Knowledge Dock™
• BLOGS • PODCASTS • VIDEOS • 24/7/365
[knowledge-dock.com]



Log-on and Learn from the Best
On-line training that's available when you are – 24/7/365.
Visit brake-school.com.