

Bendix® SC-3™ In-Line Single Check Valves



FIGURE 1 - SC-3™ SINGLE CHECK VALVES

DESCRIPTION

The Bendix® SC-3™ in-line single check valve is a device placed in an air line to allow air flow in one direction only and to prevent flow of air in the reverse direction.

The two types of SC-3™ in-line single check valves are:

1. The wafer-style type (Figure 2).
2. The ball type (Figure 3).

An arrow indicating the direction of air flow is found on the body of the valve.

OPERATION

Air flow in the normal direction moves the check valve from its seat, and the flow is unobstructed. Flow in the reverse direction is prevented by the seating of the ball or wafer-type disc, which is caused by a drop in up-stream air pressure and assisted by the spring.

PREVENTATIVE MAINTENANCE

Important: Review the Bendix Warranty Policy before performing any intrusive maintenance procedures. A warranty may be voided if intrusive maintenance is performed during the warranty period.

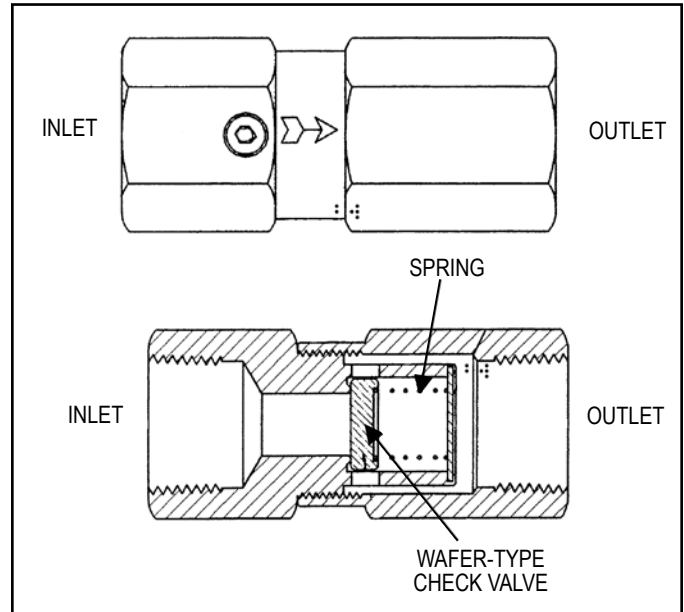


FIGURE 2 - SC-3™ SINGLE CHECK VALVE: WAFER-TYPE (EXTERIOR AND CROSS-SECTIONAL VIEWS)

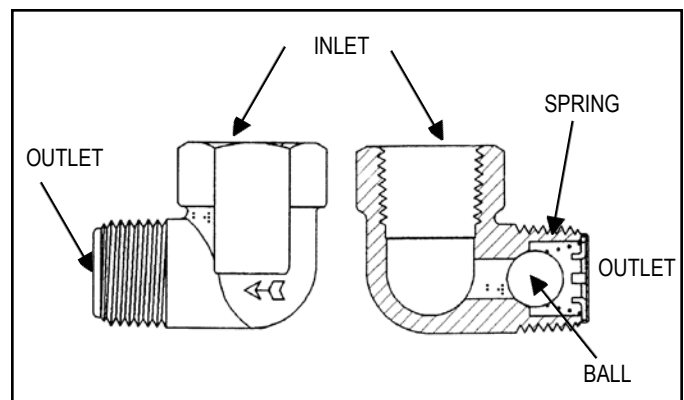


FIGURE 3 - SC-3™ ANGLE CHECK VALVE: BALL TYPE (EXTERIOR AND CROSS-SECTIONAL VIEWS)

No two vehicles operate under identical conditions; as a result, maintenance intervals may vary. Experience is a valuable guide in determining the best maintenance interval for air brake system components. At a minimum, the SC-3™ valve should be inspected every 6 months or 1500 operating hours, whichever comes first, for proper operation. Should the SC-3™ valve not meet the elements of the operational tests noted in this document, further investigation and service of the valve may be required. Replace any check valves leaking or showing signs of wear or deterioration.

INSTALLATION

The straight SC-3™ check valve consists of a two piece body. When installing the valve, tighten using the hex surface that is closest to the port that it is being installed in. See Figure 4. This will prevent breaking the seal between the two halves which would cause leakage.

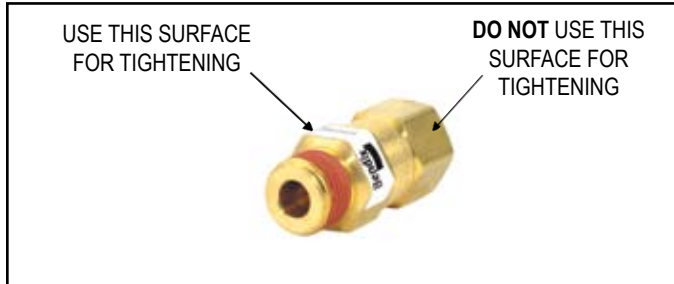


FIGURE 4 - SC-3™ CHECK VALVE WITH 2 PIECE BODY

OPERATION & LEAKAGE CHECKS

NOTE: Depending upon installation, it may be easier or necessary to completely remove check valves so that the following checks may be made.

With air pressure present at outlet side of check valve and the inlet side open to atmosphere, coat the open end of the check valve with soap suds; a 1" bubble in 5 seconds is permissible (100 SCCM).

If the check valve does not function as described, or leakage is excessive, it is recommended that it be replaced with a new genuine Bendix part available at any Bendix parts outlet.

REMOVAL

Block and hold vehicle by means other than air brakes.

Completely drain all reservoirs.

Disconnect air lines at single check valve and remove.

DISASSEMBLY/ASSEMBLY

Note: There are no Disassembly/Assembly procedures for SC-3™ valves. They are non-serviceable items. If a valve does not meet the Operational and Leakage tests, it should be replaced at any authorized Bendix parts outlet.

TESTING AND TROUBLESHOOTING

Perform "Operating and Leakage Checks".

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 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. Always wear safety glasses.
2. Stop the engine and remove 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.
3. 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.
4. 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 an AD-IS® air dryer system or a dryer reservoir module, be sure to drain the purge reservoir.
5. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
6. Never exceed manufacturer's recommended pressures.
7. 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.
8. Use only genuine Bendix® replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
9. 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.
10. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
11. For vehicles with Antilock 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.