

Installation Instructions



Bendix® GSAT® (Global Scalable Air Treatment) Core Module Park Brake Silencer Kits for Volvo® Trucks

KIT COMPONENTS

See Figure 1. The following components are in the Bendix® GSAT® (Global Scalable Air Treatment) core module park brake silencer kits for Volvo® trucks:

Item No.	Component	Quantity
1	Silencer Mesh	1
2	Silencer Cover for Trailer	1
Bendix Kit Part Number: K202687K57 Volvo Kit Part Number:23771638		

Item No.	Component	Quantity
3	Silencer Cover for Tractor	1
4	Silencer Mesh	1
Bendix Kit Part Number: K255971K57 Volvo Kit Part Number:24377470		

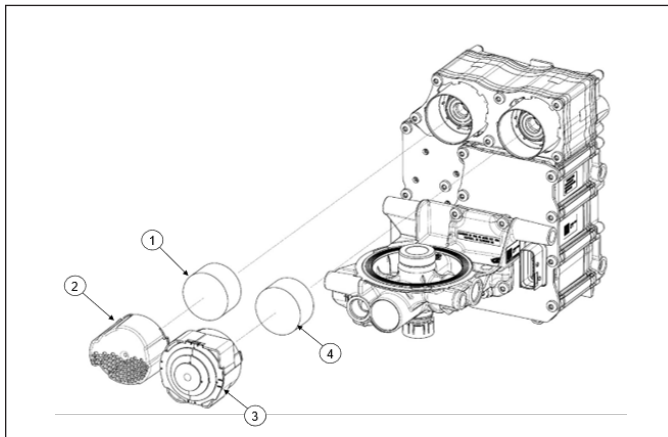


Figure 1 – Core Module Park Brake Silencer Kits

VEHICLE PREPARATION

1. Park the vehicle on a level surface and chock the wheels.
2. Turn the ignition switch OFF.
3. Drain all reservoirs to 0 psi (0 kpa).
4. Clean the exterior of the air dryer body, cartridge, and core module silencers to remove any dirt and debris.



WARNING

Always depressurize all air dryers and air reservoirs on the vehicle to 0 psi (0 kpa) before servicing the air dryer. Failure to drain the air pressure from all air dryers and air reservoirs may result in injury or death.

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-HFi® 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.

DISASSEMBLY

Air Dryer Cartridge (Attached Variant)

NOTE: When a Bendix® GSAT® (Global Scalable Air Treatment) air dryer is attached to the core module, the air dryer cartridge will need to be removed in order to service the trailer park brake silencer. If the air dryer is not attached to the core module, the park brake silencers are accessible without removing the air dryer cartridge.

1. Using an appropriate filter wrench, loosen the old cartridge and remove it from the air dryer housing by turning in a counter-clockwise direction. Be careful not to allow dirt or other contaminants to fall into the air dryer housing.



Retain the air dryer cartridge as it will be reused. Do not wipe off grease.

NOTE: If using a filter wrench, place the filter wrench on areas *A* or *B* as shown in *Figure 3* to avoid damage to the cartridge. If a filter wrench is used in the middle of the cartridge, damage may occur.

2. Clean the surface area of the air dryer housing with a clean cloth. Be careful not to allow dirt or other contaminants to fall into the air dryer housing

Silencer

1. To service the silencers, first remove the silencer cover by bending the locking tab outward, away from the air dryer housing, and rotate the cover ¼ turn in a counter-clockwise direction. Remove the silencer cover by pulling it away from the core module. Discard the cover. See *Figure 2*.
2. With the cover removed, the mesh material can be removed and discarded by firmly gripping and pulling the material out of the core module exhaust cavity.
3. Clean the surface area of the park brake exhaust cavity with a clean cloth. Be careful not to allow dirt or other contaminants to fall into the exhaust cavity.

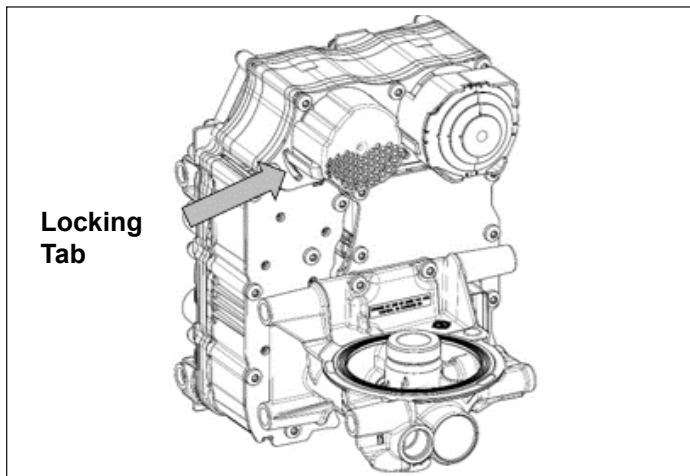


Figure 2 – Locking Tab Location

Cleaning and Inspection

1. Using a clean rag, wipe the air dryer body bores clean, taking care to not knock contamination into the bores.
2. Inspect for physical damage to the body casting and take note of broken or missing parts.
3. Inspect the interior and exterior of the body for severe corrosion, pitting, and cracks. Superficial corrosion and/or pitting on the exterior portion is acceptable.
4. Inspect the bores, valve seating, and o-ring contact areas for deep scuffing, gouges, or nicks that would not permit an air-tight seal. Inspect all air line fittings for corrosion.

NOTE: If any of the conditions in Steps 2 to 4 are noted, replace the GSAT air dryer.



Failure to maintain and replace corroded fittings may result in poor vehicle performance and may be a violation of commercial vehicle regulations.

ASSEMBLY

Silencer

1. Place the bound mesh material into the exhaust cavity of the core module, ensuring it is fully seated.
2. To install the exhaust cover, align the snap tabs with the air dryer housing backer plate slots. Push the snap tabs inward, towards the core module and rotate ¼ turn until the locking tab engages.

Air Dryer Cartridge

NOTE: The air dryer cartridge will be reused and residual grease is adequate.

1. Spin the air dryer cartridge onto the air dryer housing in a clockwise direction until the seal makes contact with the air dryer housing. Using an appropriate filter wrench (if necessary), tighten the air dryer cartridge ½ turn.

NOTE: If using a filter wrench, place the filter wrench on areas *A* or *B* as shown in *Figure 3* to avoid damage to the cartridge. If a filter wrench is used in the middle of the cartridge, damage may occur.

2. Before placing the vehicle back into service, perform the *Operational Test*.

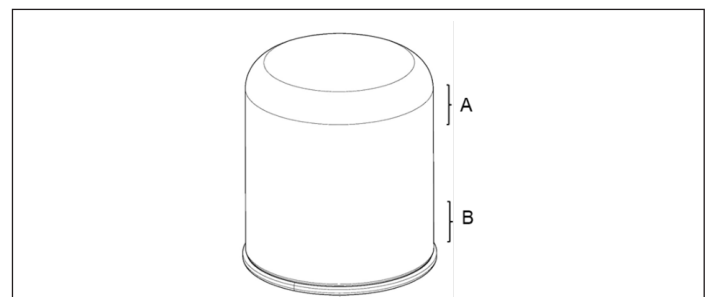


Figure 3 – Air Dryer Cartridge Filter Wrench Placement

OPERATIONAL TEST

Before placing the vehicle in service, perform the following tests.

1. Close all of the reservoir drain cocks.
2. With the engine at 1800 rpm, build up system pressure to system cutout while observing that both service reservoir dash gauges rise equally in pressure from 0 psi (0 kpa) to system cutout. If either gauge fails to display this condition, stop testing and check the installation. Note that the Bendix® GSAT® (Global Scalable Air Treatment) system regenerates/purges with an audible escape of air when system cutout pressure is reached.

NOTE: The service reservoir pressures will drop during regeneration/purge.

3. Fan down the service brakes to reduce system air pressure to system cut-in. Note that the system – once again – builds to full system pressure and is followed by a regeneration/purge event at the GSAT air dryer primary exhaust.
4. To verify proper park brake function, use the Hand Control Unit (HCU) to release and apply the tractor park brakes several times. The HCU and/or dash cluster should illuminate, indicating a proper park state. *Refer to the applicable Operator's Manual* for HCU statuses.
5. It is recommended that the following items be tested for leakage to ensure the GSAT will not cycle excessively:
 - a. Air brake system (*Refer to the Bendix® Air Brake Handbook, BW5057, on B2Bendix.com*)
 - b. Compressor unloader mechanism
 - c. GSAT core module pneumatic connections
 - d. Drain cock and safety valve in first (supply) reservoir (if equipped)
 - e. All air connections leading to and from the first (supply) reservoir (if equipped)

TECHNICAL ASSISTANCE

For additional assistance, the Bendix Tech Team can be reached by email at techteam@bendix.com or by phone at 1-800-AIR-BRAKE (1-800-247-2725), option 2. Representatives are available Monday through Thursday, 8:00 a.m. – 6:00 p.m., and Friday, 8:00 a.m. – 5:00 p.m. ET.

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