



# FIELD KIT

## Vermeer Corporation

Environmental  
Pella, IA 50219 USA

**FIELD CAMPAIGN KIT # IK003350**

**DATE:**

**14 October 2016**

*For Dealer Reference: Service Bulletin # SVC2016-129*

### Bendix Spring Valve Recall

**CAMPAIGN  
TYPE:**

Mandatory-Product Safety

**CAMPAIGN  
CATEGORY:**

Kit and Bulletin

| MACHINE /<br>ATTACHMENT<br>MODEL(S): | Serial Numbers           |  | Kit Version |
|--------------------------------------|--------------------------|--|-------------|
|                                      | Included                 | Excluded   |             |
| DT6                                  | 108 – 121                | 118, 120, 121  | IK01        |
| HG4000                               | 152 – 205, 1001 – 1034   | 154–157, 161–163, 169, 173,<br>174, 176, 186–204, 1011, 1029,<br>1032–1034 | IK01        |
| HG6000                               | 1068 – 1101              | 1071, 1100, 1101   | IK01        |
| HG8000                               | 120 – 125                | None   | IK01        |
| TG5000                               | 184 – 201, 1001 – 1014   | 193, 1008–1010, 1013, 1014   | IK01        |
| TG7000                               | 1016 – 1041              | 1035, 1039, 1041   | IK01        |
| TG9000                               | 204 – 208                | None   | IK01        |
| WC2300XL                             | 1038 – 1060, 2001 – 2024 | 2006, 2019, 2021–2024  | IK01        |
| WC2500XL                             | 100, 101                 | None   | IK01        |




**PURPOSE: SLOW APPLICATION OF SPRING BRAKES WHEN PARKING THE TRAILER** Under a combination of a unique set of circumstances, it is possible (though not probable) for an internal leakage to develop in the SR-5 brake valve unit, resulting in slow to apply spring brakes when parking the trailer. The leak is heard or observed at the supply (red) glad-hand when uncoupled from the tractor. If coupled to a tractor, a leak may be heard from the exhaust of the park control valve (Bendix ® MV-3™ dash control valve) or from the tractor protection valve.

If uncoupled, and the internal leakage presents itself, loss of air pressure in the trailer reservoir will result. If a high rate of leakage is observed from the supply glad-hand or park control valve exhaust (as noted above) it is possible that the spring brakes will be slow to apply on the trailer. **Note:** *This issue presents no impact on the tractor brakes.* Death or serious injury is possible if crushed or run over by the trailer if it rolls away after being uncoupled from the tractor or tow vehicle. **This kit must be installed as soon as possible.**

#### **SPECIAL TOOLS AND CONDITIONS:**

1. None

|  |   |
|--|---|
|  <b>WARNING!</b> | Use the following Shutdown Procedure before attempting to do any of the work described in this Kit. |
|--|---|

#### **HG4000, HG6000, HG8000**

1. Ensure all material on infeed conveyor has been ground.
2. Shut off Auto Feed.
3. Disengage hammermill, and wait for engine to reach idle.

Microprocessor will automatically reduce engine speed to idle before clutch will disengage.

4. If remote control was in use, shut off remote.
5. Wait for hammermill rotation to stop. Indicator light on display will go out when rotation has stopped. Look at main hammermill bearings behind shield to confirm hammermill has stopped.
6. When hammermill has come to a complete stop and all ground material has been discharged, shut off conveyor.
7. Shut off engine and remove key.
8. Move Battery Disconnect Switch to OFF.

## **TG5000, TG7000, TG9000**

1. Ensure all material in the tub has been ground.
2. Shut off tub rotation.
3. Disengage hammermill, and wait for engine to reach idle.

Microprocessor will automatically reduce engine speed to idle before clutch will disengage.

4. Shut off remote control.
5. Wait for hammermill rotation to stop.
6. When hammermill has come to a complete stop and all ground material has been discharged by conveyor, shut off conveyor.

**NOTICE:** Ensure that hammermill has stopped rotating before shutting off engine.

7. Shutting off engine before hammer has stopped rotating can damage the clutch.
8. Shut off engine and remove key.
9. If remote control was in use, shut off remote. (TG7000 and TG9000)

Move Battery Disconnect Switch to OFF position at end of workday when LED turns off.

## **WC2300XL and WC2500XL**

1. Ensure all material on infeed conveyor has been chipped.
2. Reduce engine speed to idle.
3. Disengage Cutter Drum Clutch Switch and wait approximately 10 seconds for Clutch Engaged Light to turn off and for engine to return to idle speed. (WC2300XL)
4. Disengage Cutter Drum Clutch by pressing Auto Button and selecting Disengage Clutch. Check indicator light to be off. (WC2500XL)

Engine controller will automatically reduce engine speed to about 400 rpm before clutch will disengage and then return to low idle (1000 rpm).

5. Shut off engine and remove key.
6. Wait for drum rotation to stop. Look through viewing slots or hole in access platform guard to confirm that cutter drum has stopped.
7. If Remote Control was in use, shut off remote.

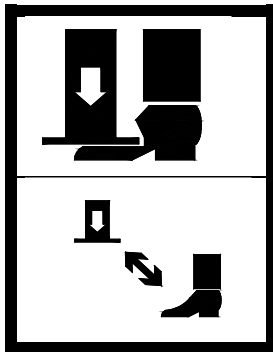
Move Battery Disconnect Switch to OFF at the end.



**WARNING!** Disabling or removing brakes could allow the trailer to roll, which may cause death or serious injury. Always secure trailer to a tow vehicle with park brake set or with wheel chocks to prevent rolling prior to disabling or removing brakes.

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## Detach from Towing Vehicle



**WARNING!** Hydraulic jack pad may crush.

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Stay away when hydraulic jack is lowering to ground.

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### DT6

1. Select a flat, level surface to place TX grinder and dolly.
2. Pull park brake knob to engage park brake and chock wheels on the dolly transporter.
3. Disconnect brake lines.
4. Disconnect electrical cord.
5. Disconnect fifth wheel connection.

### HG4000 Pintle Hitch

1. Park machine on stable, level location. Apply trailer brakes.
2. Back up slightly to remove load from hitch. Apply towing vehicle park brake.
3. Solidly block trailer wheels.
4. If ground is soft, provide a base for stabilizer.
5. Using stabilizer handle, lower stabilizer until it raises pintle ring sufficiently to clear pintle hook.
6. Disconnect brake lines and electrical connector from tow vehicle.
7. Unhook towing chains.

8. Pull away slowly from trailer and remove towing vehicle from Thrown Object Area.
9. Adjust stabilizer to level machine. Remove wheel blocking.
10. Store brake lines and electrical cord in storage area on tongue.

### **HG4000 Fifth Wheel Hitch**

1. Park machine on stable, level location. Apply trailer brakes.
2. Back up slightly to remove load from kingpin. Apply towing vehicle park brake.
3. Solidly block trailer wheels.
4. If ground is soft, provide a base for front stabilizers.
5. Using stabilizer handle, lower front stabilizers until they touch the ground. Lower slightly further but do not raise trailer off the fifth wheel. Pull handle/shaft out for lower gear ratio (easier to crank under load), push handle/shaft in for higher gear ratio (allow faster speed without load).
6. Disconnect air brake lines and electrical connectors. Attach air coupling caps to keep foreign material out of brake lines.
7. Unlock fifth wheel, including manual secondary lock, if so equipped.
8. Pull out slowly from trailer and remove tractor from thrown object area.
9. Adjust front stabilizers to level machine.

### **HG6000**

1. Following the guidelines in this section, park machine on stable, level location. Apply trailer brakes.
2. Back up slightly to remove load from kingpin. Apply tractor emergency brakes.
3. Block front of trailer wheels.
4. If ground is soft, provide a base for front stabilizers.
5. Start engine. Lower front stabilizers until they touch the ground. Lower slightly farther but do not raise trailer off the fifth wheel.
6. Disconnect air brake lines and electrical connectors. Attach air coupling caps to keep foreign material out of brake lines.
7. Unlock fifth wheel, including manual secondary lock, if so equipped.
8. Pull out slowly from trailer and remove tractor from thrown object area.
9. Adjust front stabilizers to level machine. Shut off machine.

## TG5000

1. Following the guidelines in this section, park machine on stable, level location. Apply trailer brakes.
2. Back up slightly to remove load from kingpin. Apply tractor emergency brakes.
3. Block trailer wheels.
4. If possible, place mats, pads, or planks beneath machine stabilizers to improve stability and prevent sinking. Clear all debris from the ground and ensure stabilizers have clearance to lower to the ground.
5. Raise and secure falling object canopy. Refer to "Falling Object Canopy - Raise," in *Operator's Manual*.

While connected to towing vehicle, do not raise tub without first lowering outriggers to provide a stable base.

6. If possible, place planks beneath machine outriggers to improve stability and prevent sinking. Clear all debris from the ground and ensure outriggers have clearance to lower to the ground.
7. Raise and secure falling object canopy.
8. Lower landing gear:
  - If using manual landing gear, lower landing gear until it touches the ground. Crank a few extra turns but do not raise the trailer off the fifth wheel.
  - If equipped with optional hydraulic jacks, lower jacks.
9. If equipped with optional loader, fully lower stabilizers.
10. Disconnect brake lines, electrical connector. Attach air coupling caps to keep foreign material out of brake lines.

## **TG7000 and TG9000**

1. Following the guidelines in this section, park machine on stable, level location. Apply trailer brakes.
2. Back up slightly to remove load from kingpin. Apply tractor emergency brakes.
3. Block trailer wheels.

While connected to towing vehicle, do not raise tub without first lowering outriggers to provide a stable base.

4. If possible, place planks beneath machine outriggers to improve stability and prevent sinking. Clear all debris from the ground and ensure outriggers have clearance to lower to the ground.
5. Raise and secure falling object canopy. Refer to "Falling Object Canopy," in operator's manual.
6. Pull out slowly from the trailer and remove tractor from Thrown Object Area.
7. Adjust outriggers to level machine.
8. Lower access ladder.

## **WC2300XL and WC2500XL**

1. Park machine on level ground.
2. Disconnect electrical connector and air brake lines from tow vehicle.
3. Route through hook (4) and place air lines (2) and trailer harness (3) in hanger as shown.
4. Disconnect and store safety chains (1) on end of tongue.
5. Release pintle hook.
6. Start engine and use jack to raise and support tongue.

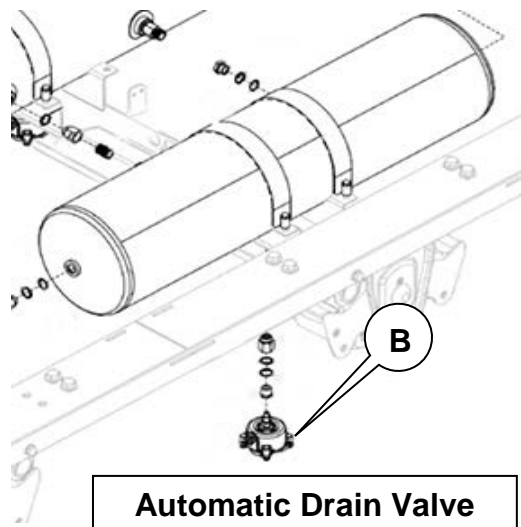
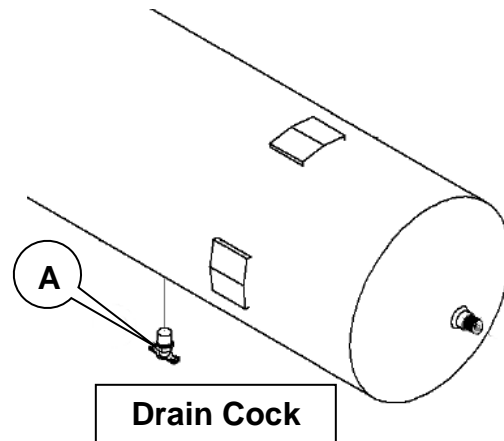
## Residual Air

**Reservoir draining devices** are installed in air brake reservoirs, and allow liquid contaminants collected to be drained off. Vehicles without air dryers are normally drained each day. Vehicles which have Bendix desiccant air dryers should be drained every 30-90 days. [Tip: The presence of water may indicate that the air dryer cartridge may need to be replaced. Other potential sources of water in the reservoirs are: when shop air has been used to fill the system, an excessive duty cycle, or excessive air leakage.]

Manual draining devices consist of drain cocks which require manual operation at the point at which they are installed. Drain cocks are available in various styles and pipe thread sizes. [Tip: Always drain contents slowly for best results.]

The Bendix® DV-2™ automatic reservoir drain valve is a completely automatic draining device. It is installed directly into the end or bottom drain port of the reservoir and does not require any additional control lines. It is available in either an end-port or bottom-port version, and with or without a (12v or 24v) heater. These are most suitable for systems without a desiccant air dryer.

**Ensure that all of the residual air has been released.**



## Residual Air

**DT6, HG6000, HG8000, TG5000, TG7000, TG9000, WC2300XL, WC2500XL**

1. Drain residual air from air tanks by turning drain cock **(A)**.

## HG4000

2. Drain residual air from air tanks by using the automatic reservoir drain valve **(B)** by pushing the wire stem.

**Procedure**

1. Inspect valve **(A)**, if outside the date code range, do nothing. If in the date code range, install kit per instructions.



**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 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 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®

**RECALL GUIDELINES**

**Bendix SR-5 Valve**

Valves included in this field action were manufactured during the period:

January 1, 2014 through March 4, 2016

That is, A0114T through C0416T

AD-9SI® DRM™ dryer reservoir module, or a Bendix® AD-9si® air dryer, be sure to drain the purge reservoir.

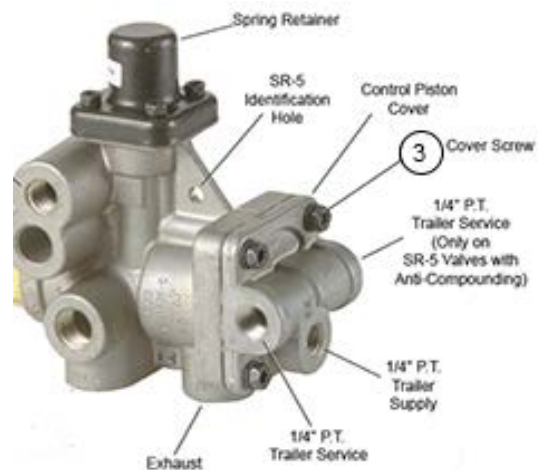
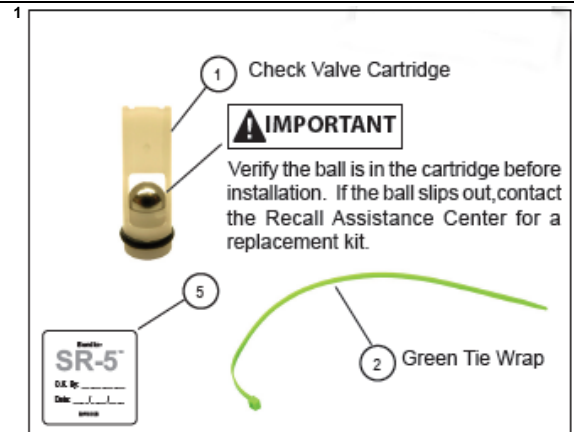
- Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
  - Never exceed manufacturer's recommended pressures.
  - Never connect or disconnect a hose or line containing pressure; it may whip 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.

2. Disconnect negative battery cable from battery.

This kit contains a check valve cartridge (1), a green tie wrap (2) and one cover screw (3). The cover screw (3) is included in the event one is damaged or lost during the installation process.

### Preparation

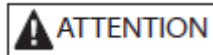
- Use a wire brush to clean the exterior of the SR-5 valve especially around the control piston cover. Use compressed air to blow away loose debris to ensure that the valve does not become contaminated when serviced.
- Verify that the valve does not have a green tie wrap already through the SR-5 identification hole. If a tie wrap is present, this valve has already been serviced with this kit. Return the vehicle into service. Refer to page 9.
- Verify the valve meets the recall criteria as outlined in the RECALL GUIDELINES section of this document. If the valve falls outside of these parameters, return the vehicle to service.



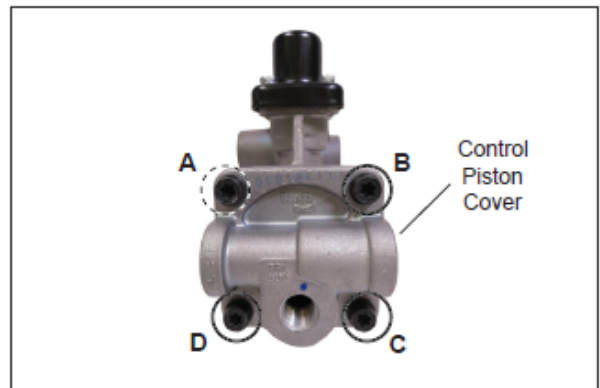
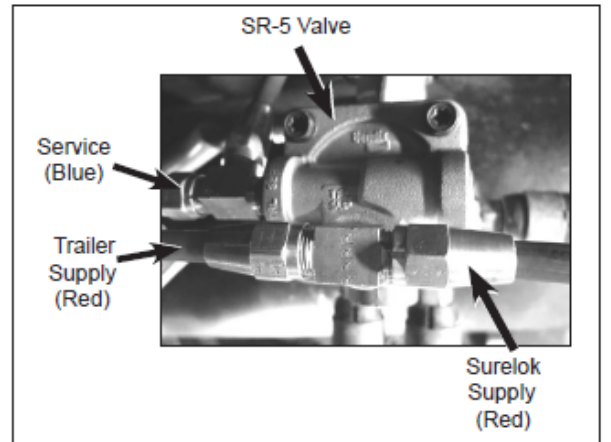
## DISASSEMBLY

The installation of this kit requires that the control piston cover be loosened, but not completely removed from the valve body.

1. Identify and disconnect all the air lines connected to the control piston cover.
2. It is necessary to rotate the fitting in the trailer supply port to complete this step. Rotate the fitting counterclockwise only (loosening) no more than 90°.
3. Remove cover screws "B", "C", and "D". While holding the control piston cover in place, loosen cover screw "A" 4–5 turns. Carefully rotate the cover clockwise – pivoting on screw "A" – until the check valve passage in the body is visible. Hold the cover in this position to retain the control



OVER-ROTATING THE COVER MAY ALLOW THE CONTROL PISTON AND RETURN SPRING TO COME OUT OF THE VALVE. IF THIS HAPPENS, REMOVE ANY DEBRIS THAT MAY ADHERE TO THE PISTON AND REINSERT, SPRING FIRST.



4. Exercise caution to prevent damage to the cover seal.

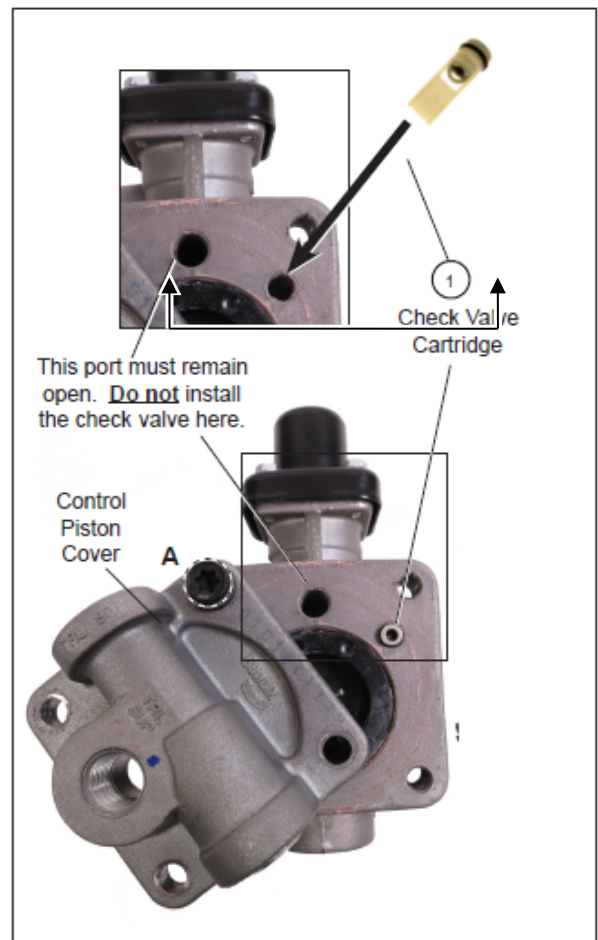
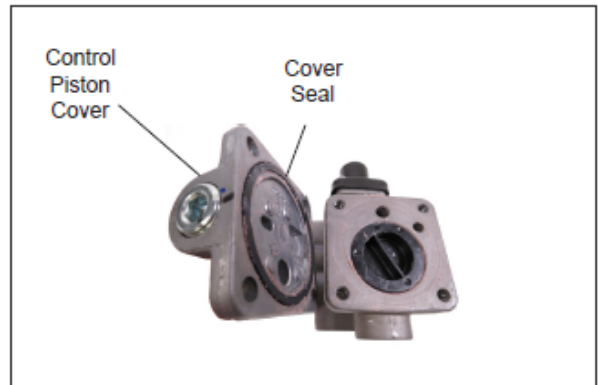
## ASSEMBLY



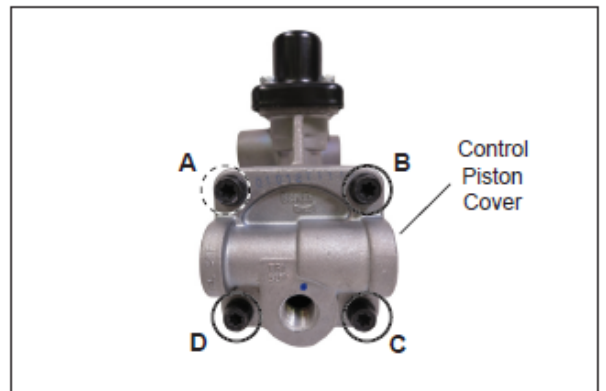
1. Ensure that the check valve cartridge (1) is intact.
2. Holding the larger diameter (O-ring end) of the check valve cartridge (1), insert the pointed end into the air passage. Push the check valve cartridge (1) in lightly with your finger until it is flush with the body housing.

### ATTENTION

THE CHECK VALVE CARTRIDGE (1) WILL FIT SNUGLY INTO THE CORRECT AIR PASSAGE. DO NOT INSERT THE CHECK VALVE CARTRIDGE (1) INTO THE LARGER AIR PASSAGE.



3. Rotate the cover back into position and install the three screws. Torque all four screws in a crossing pattern to 100 in-lb (136 Nm). (A, C, D then B).

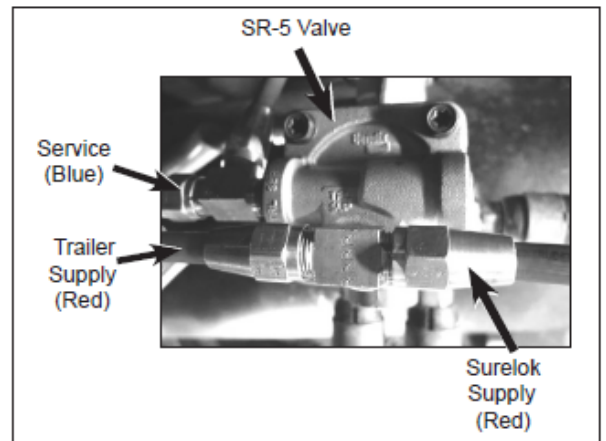


4. Reposition any fittings that may have been moved and reconnect the air lines.
5. Perform the OPERATIONAL AND LEAKAGE TESTS detailed below before placing the vehicle back into service.

#### OPERATIONAL AND LEAKAGE TESTS

This test can be performed by connecting the red trailer glad-hand to a tractor or an external air source. Check the air source gauge against a gauge known to be accurate before performing these tests.

1. Block all wheels or hold the vehicle by means other than the air brakes: drain all pressure from the trailer reservoir.
2. Install a gauge in the trailer reservoir(s). Connect the air source to the red supply glad-hand of the trailer on which the Bendix® SR-5™ trailer spring brake valve is to be tested. Build the trailer to full system pressure by placing the tractor park control valve in the charge position, or by applying an external air source. Make sure the spring brake chambers release before the reservoir starts to fill.

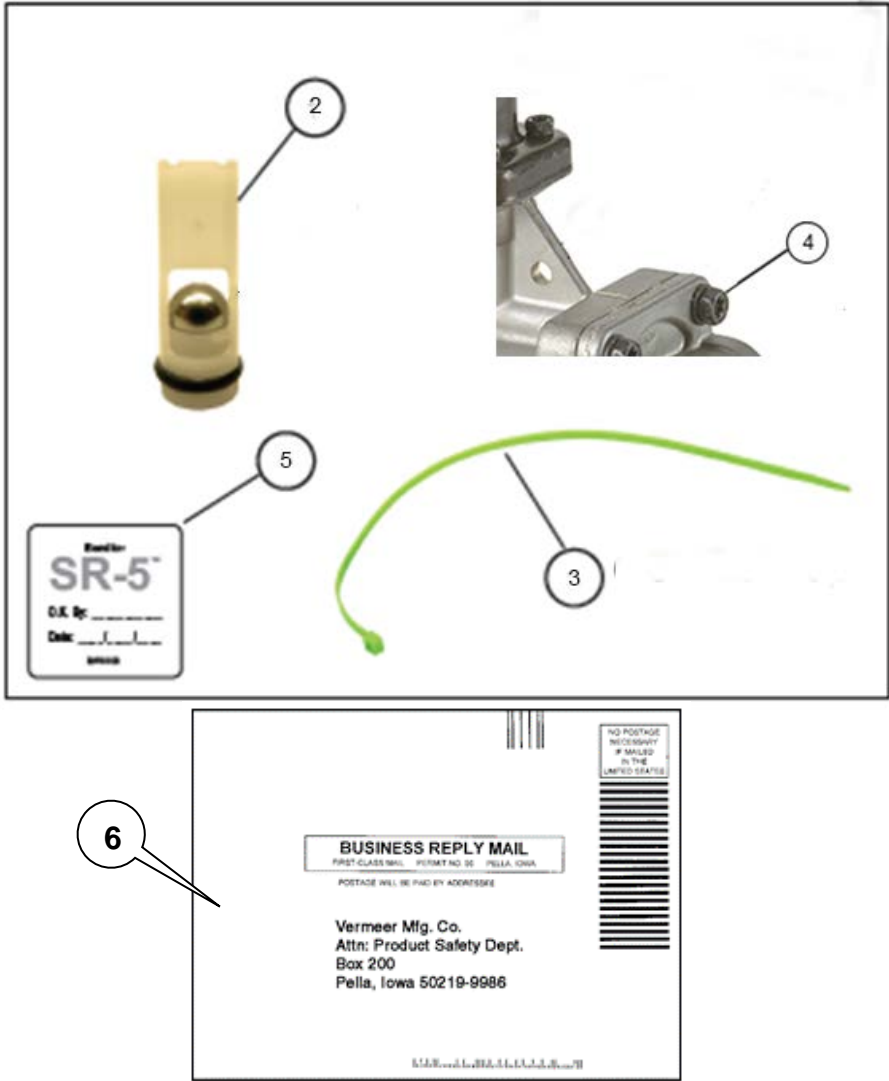


|   |  |
|---|--|
| <p>3. When full system pressure is reached – and the spring brakes are fully released – apply a soap solution to the control piston cover and fittings that were removed during the repair. A one inch bubble in 5 seconds is permissible.</p> <p>4. Place the trailer air supply valve in the exhaust position, or disconnect the external air source. The spring brakes should apply. This will be evident by a full exhausting of chamber pressure at the SR-5 valve exhaust port.</p> <p>If the repair was completed correctly, the park brakes should be set, and the reservoir pressure should hold steady with no decay. If the valve does not perform properly, repeat the installation procedure and retest.</p> | <p>5. Drain the reservoirs and remove the gauge that was installed in the trailer reservoir(s) for testing purposes. Reinstall the fitting that was removed. Recharge the trailer air system and check for leaks using a soap solution. A one inch bubble in 5 seconds is permissible.</p> <p>6. For identification purposes, secure the green tie wrap (2) through the identification hole located on the valve body.</p> <p>7. Included in this kit is an SR-5 decal (5) that can be placed on the trailer upon completion of the valve installation. <u>The installation of this decal is not required; however, it may be helpful for quick identification of the trailers that have been serviced per the recall.</u> Space is provided for the technician's name and date of installation.</p> |
|---|--|

- Remove Figure 1 and provide to unit owner to place with existing Parts Manual by attaching page to the customer's copy of the invoice or placing the page in the unit's manual storage box.

UNIT OWNER COPY:  
Insert in Parts Manual  
for future reference.

**Figure 1**



**FIGURE 1 Parts List**

| REF. NO. | PART NO.  | DESCRIPTION  | IK01 QTY. |
|----------|-----------|--|-----------|
| 1        | 163749235 | BENDIX SR5 SPRING VALVE KIT (ITEMS 2—5 are reference)  | 1         |
| 2        | -         | CHECK VALVE CARTRIDGE                                  | 1         |
| 3        | -         | GREEN TIE WRAP   | 1         |
| 4        | -         | COVER SCREW  | 1         |
| 5        | -         | SR-5 DECAL   | 1         |
| 6        | 296287039 | WORK COMPLETION CERTIFICATE – SAFETY KIT               | 1         |
|          |           | Kit ik003350 includes all items in Figure 1 Parts List |           |