



SAFETY RECALL

(Previously called Vehicle Recall)

SC313

(Does not apply to Mack Trucks Australia)

Date: 12/18/06 (Supersedes SC313 dated 08/04/06)

To: All MACK Dealers

Subject: Spring Brake Modulating Relay (Bendix SR-7™) Valve

Information:

It has been determined that a manufacturing defect exists in the cast metal body of certain spring brake modulating relay (SR-7™) valves. Suspect valves were manufactured by Bendix Commercial Vehicle Systems LLC between April 1, 2006 and May 24, 2006. The diameter of the check valve cavity inside the valve body is not correct. Consequently, the check valve may not seat properly and result in internal leakage. An improperly seated check valve can cause a delay in the application of the parking brakes after the vehicle operator pulls the dashboard park brake valve to park the vehicle, and the delayed application can occur without warning, leading to unintended vehicle roll-away.

Affected vehicles include CXN, CHN, CTP, CT, CV and MR model chassis (straight-trucks and tractors) manufactured between April 5, 2006 and June 5, 2006. Approximately 2,940 chassis are involved in this campaign. A list of affected chassis has been sent to all applicable dealers.

Procedures:

The SR-7™ valve on all affected vehicles must be inspected. If the date code pin-stamped on the valve falls within the date range of the suspect valves and the casting is identified as "BENDIX 1", the valve must be replaced.

NOTE

Before proceeding, check the campaign status in the e-Warranty system to see if the campaign has already been completed. Campaign status can also be checked by looking at the Campaign Completion Label located on the lower edge of the passenger-side door. If the campaign has been completed, the campaign number (SC313) and the completion date should be written on the label.

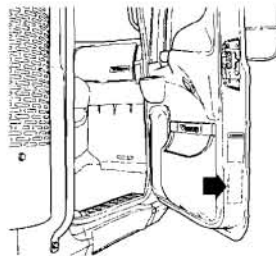
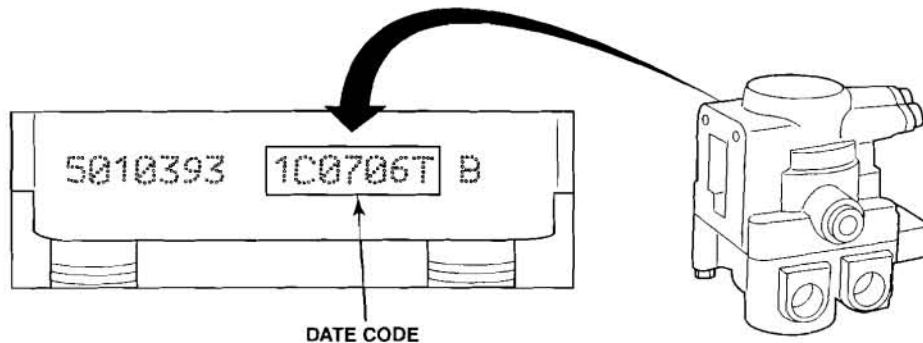


Figure 1 — Campaign Label Location

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Procedures are as follows:

1. Secure the chassis for service and block the wheels to prevent the vehicle from moving.
2. The SR-7™ valve is located on the right-hand side of the vehicle, mounted on a crossmember. To determine if the valve is involved in the campaign, determine the date of manufacture by checking the date code which is pin-stamped on the top of the valve.



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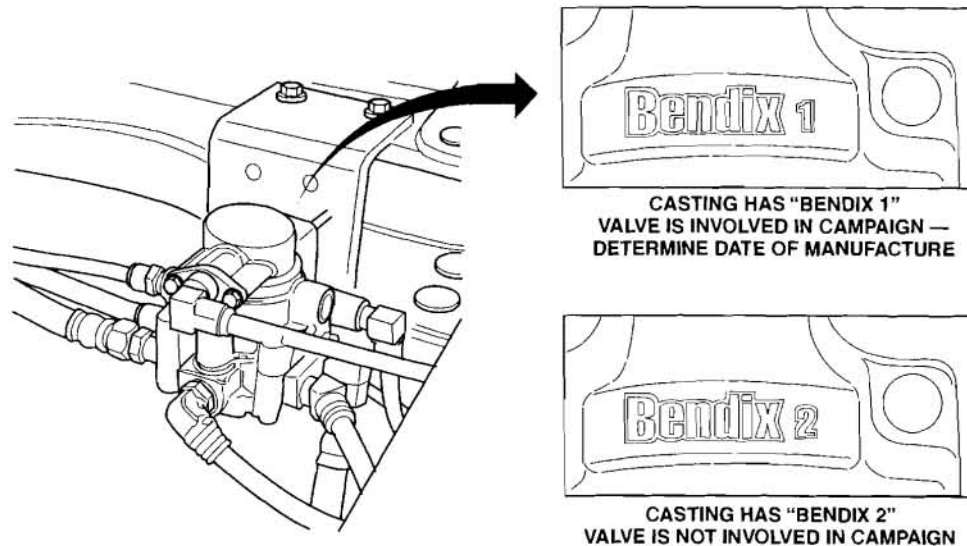
Figure 2 — Identifying SR-7™ Valve Date Code

The date code characters used for determining the date of manufacture are the second through sixth alphanumeric characters. All other characters are disregarded.

The second character in the date code is an alpha character representing the month of manufacture (letters A [January] through M [December]; the letter I is not used). For valves involved in this campaign, the second character of the date code will be either a D for April or an E for May.

The next four characters are numbers which represent the two-digit day, followed by the two-digit year. As an example, a valve having a date code stamping of 1C0706T (key characters being C0706), indicates that the valve was manufactured on March 7, 2006. If the valve has a date code within the range of -D0106- through -E2406- (April 1, 2006 through May 24, 2006), it must then be determined if the valve is suspect by identifying the casting. To identify the casting, proceed to step 3.

3. The valve casting is identified as either “**Bendix 1**” or “**Bendix 2**.” To identify the valve casting, remove the two capscrews that secure the valve to the mounting bracket, and then tilt the valve so that the back mounting surface can be seen. If the casting has “**Bendix 1**” embossed on the back surface, the valve is involved in the campaign and it must be replaced. If the casting has “**Bendix 2**” embossed on the back, the valve is not affected by the campaign, and no further action is required. The valve can be reinstalled.



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Figure 3 — Identifying SR-7™ Valve Casting

If the valve casting is identified as “Bendix 1” and the date code range is within -D0106 through -E2406, it must be replaced. Replacement procedures are as follows:

NOTE

To facilitate removal, the valve can be loosely reinstalled on the mounting bracket to make it easier to disconnect the air lines.

1. Completely drain the air system.
2. Mark the air lines to ensure that the lines will be connected to the correct ports at reinstallation.

CAUTION

Make sure that pressure has been exhausted from the air lines before they are disconnected.

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3. Disconnect all the air lines from the valve. Quick connect air lines are disconnected as follows:

- a. Using the push-to-connect release tool (tool No. 9032-1800TRK), depress the collet head to release the grip on the tubing. The tube release tool is available through the MACK Parts System.

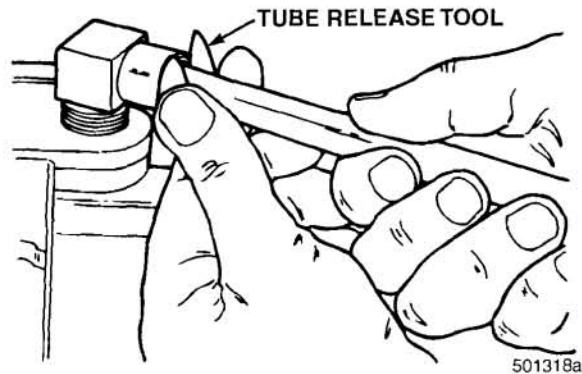


Figure 4 — Depressing Collet

- b. With the collet depressed, pull the tubing from the fitting.

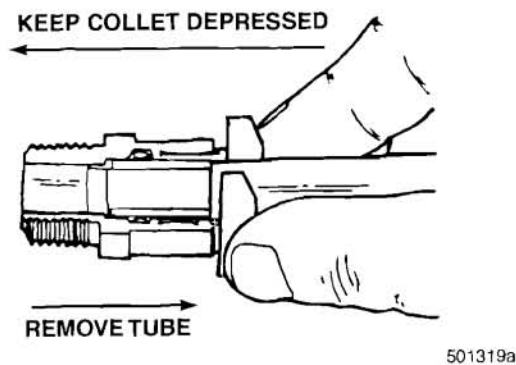


Figure 5 — Removing Tube

4. After all the air lines have been disconnected, remove the valve from the chassis.
5. Remove all the fittings and plugs from the existing valve.
6. Using a suitable pipe sealant, install the fittings and plugs onto the replacement valve (part No. 745-5019469). Install the fittings finger tight, and then tighten 1-1/2 to 2 turns. For elbow fittings, tighten no more than one additional turn to final position.

NOTE

Teflon® tape is not a suitable substitute for pipe sealant.

7. Using the existing capscrews, install the new valve on the mounting bracket. Tighten the mounting capscrews to 200 lb-in (23 N•m).

8. Connect the air lines to the valve (refer to the following illustration for port locations).

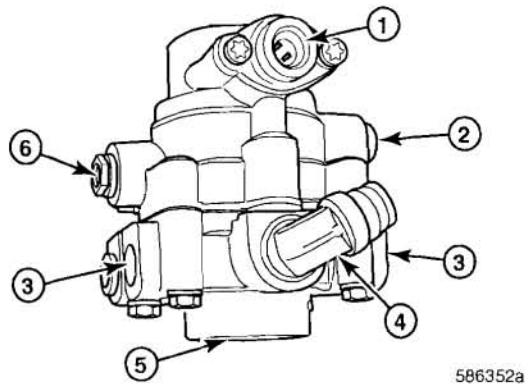


Figure 6 — SR-7™ Valve Port Locations

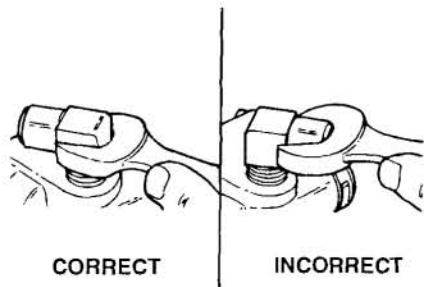
1. Control Port (line from park brake control valve)	4. Supply Port (from secondary reservoir) with a 90-degree elbow check valve
2. Balance Port (line from service brake relay valve)	5. Exhaust Port
3. Delivery Ports (lines to spring brake chambers)	6. Control Port (secondary system signal pressure)

NOTE

The fitting installed in the supply port (port No. 4 in the illustration above) is a 90-degree elbow check valve fitting. A check valve fitting must be used in this port. Do not use a regular elbow fitting.

Install the push-to-connect air lines as follows:

- a. Make any final alignment adjustments to the air fittings with a wrench on the hex or flats of the fitting body. DO NOT use a wrench near the tubing entry or collet head of the fitting.



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Figure 7 — Proper Fitting Installation

- b. Inspect the end of the tube. The end of the tube should have a square (90-degree), clean cut edge. (An angled cut up to 15 degrees is acceptable.)

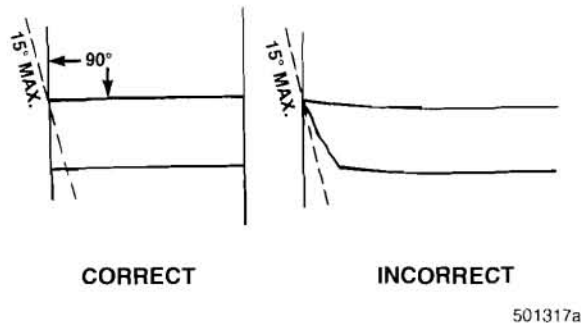


Figure 8 — Inspect Tube End

If the tube end cut is not clean or square, use a tubing cutter (Weatherhead part No. T919 or equivalent) to cut the tube. Dull knives, side cutters or other types of cutting tools may not ensure a good, clean cut. Burrs, oval tubing and contamination can damage the fitting seals.

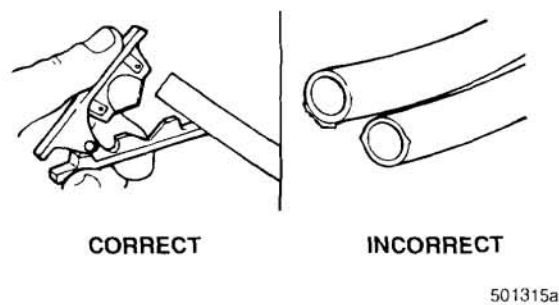
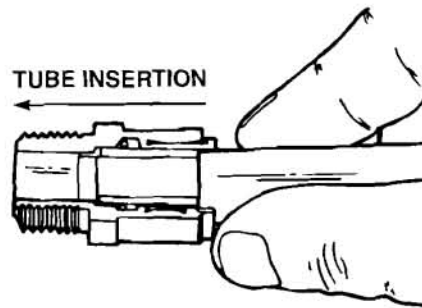


Figure 9 — Use a Tubing Cutter for Proper Cut Edge

- c. Insert the tubing straight into the fitting until a solid stop is felt. The tubing grip and seal (on the O-ring) is then accomplished. Always protect against contaminants in the cartridges and fittings during assembly.

NOTE

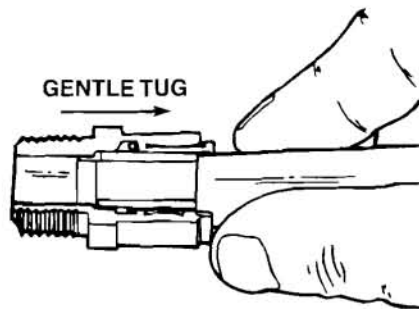
DO NOT use detergent, soap and water or similar types of solutions as a lubricant when installing the tube.



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Figure 10 — Inserting Tube

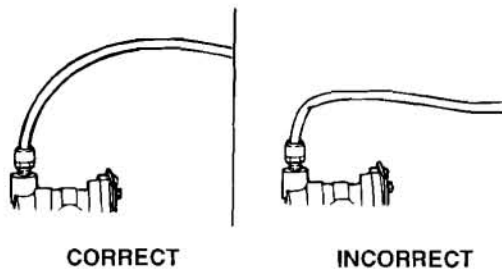
- d. After the tube has been fully inserted, gently tug on the tubing to ensure that it is secure in the fitting.



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Figure 11 — Ensure Tubing is Secure

- e. Check the completed installation. Be sure to allow ample room for a gradual bend. Severe bends can collapse the tubing, resulting in line blockage, flow restrictions and an eventual air leak.



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Figure 12 — Inspect Final Installation

9. After all the air lines have been connected, start the engine and allow the air system to build pressure to governor cut-out. Stop the engine and perform the following leakage and operational tests:

! DANGER

Make sure the wheels are blocked and the air system is at least 130 psi (896 kPa).

Leakage Test

- a. Place the dashboard park brake control valve in the RELEASE position.
- b. Using a soap and water solution, coat all ports including the exhaust port. A 1" (25.4 mm) bubble in 3 seconds is allowable.

Operational Test

- a. Place the dashboard park brake control valve in the PARK position and observe that the park brakes apply promptly (within 3 seconds).
- b. Place the dashboard park brake control valve in the RELEASE position and observe that the parking brakes release fully.

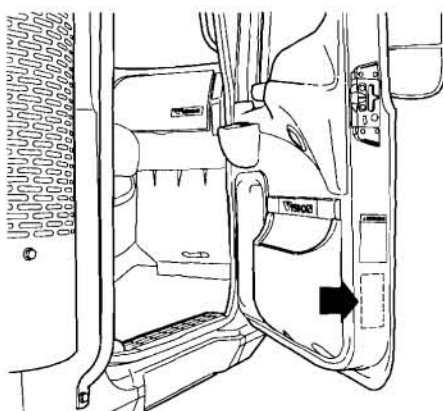
If leakage is excessive or the valve does not function as described above, the replacement valve may be defective and should be replaced with a new valve.

! DANGER

DO NOT attempt to disassemble the valve. The valve contains springs under force that could result in personal injury if the valve is disassembled and the springs are released.

NOTE

To signify that the campaign has been completed, use a permanent-type marker (such as a Sharpie®) to write the campaign number (SC313) and completion date in the spaces provided on the Campaign Completion label located on the lower edge (below the door latch) of the passenger-side door. If a label is not already affixed to the door, apply a label (part No. TS897) and supply the information as required. Campaign Completion labels are available in packs of 50 and can be ordered by faxing a completed BR313 to Pacesetters Business Services at 610-264-9465.



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Figure 13 — Campaign Label Location

Parts Required:

NOTE

The spring brake modulating relay valve kits (part No. 745-5019469) will be on hold in the Baltimore and Chicago Parts Distribution Centers, and can only be released by the MACK Customer Service Department in Allentown. To order the relay valve kits for this campaign, call your Customer Service Representative. The kits can be released as either a stock order or an emergency order, but keep in mind that the freight policies are different between these two order types.

International orders are to be prefixed — V.O.R.

Qty.	Part No.	Description
1	745-5019469	Spring brake modulating relay (SR-7™) valve kit (includes instructions)

Removed Parts:

The removed spring brake modulating relay valve can be scrapped locally.

Reimbursement:

Campaign expenses are to be recovered through normal warranty claim procedures. Enter the following information on the warranty claim:

<u>UNDER</u>	<u>ENTER</u>	
Failed Part (Causal Part)	SC0313	
eWarranty Authorization No.....	SC0313	
Labor Code/Allowance	533 8A BC 95 — 0.4 hr.	Time allowed to take charge of vehicle and inspect spring brake modulating relay (SR-7™) valve to determine campaign involvement.
	533 8B BC 95 — 0.6 hr.	Additional time to replace spring brake modulating relay valve (SR-7™) as required.

NOTE

As required by Federal Motor Vehicle Safety Standards 49 CFR 573.11, no vehicle subject to an open safety campaign shall be delivered to the customer until such time as the defect or noncompliance is remedied.
