Safety Recall

Mack Trucks Inc.
Greensboro, NC USA

Park Brake Control Valve
MRU, TE

RECALL INFORMATION

(December, 2021)

Mack has determined that certain model year 2008 - 2022 trucks may experience a worn PP1 valve (park brake control valve) exhibiting an internal leak that may cause air to pass through and out the exhaust port when the park brake is applied. Under certain conditions, the internal leak in combination with the installation of an exhaust hose may result in back pressure sufficient to allow the park brakes to release.

To help address this safety concern, Mack is releasing this recall to remove the park brake control valve vent line and fitting, and notifying owners of Bendix's guiding document for inspection and replacement of the park brake control valve.

VEHICLES AFFECTED

Certain 2008 – 2022 Mack TerraPro (MRU, TE) model vehicles manufactured from January 4, 2007 through December 6, 2021.

VEHICLE QUANTITY

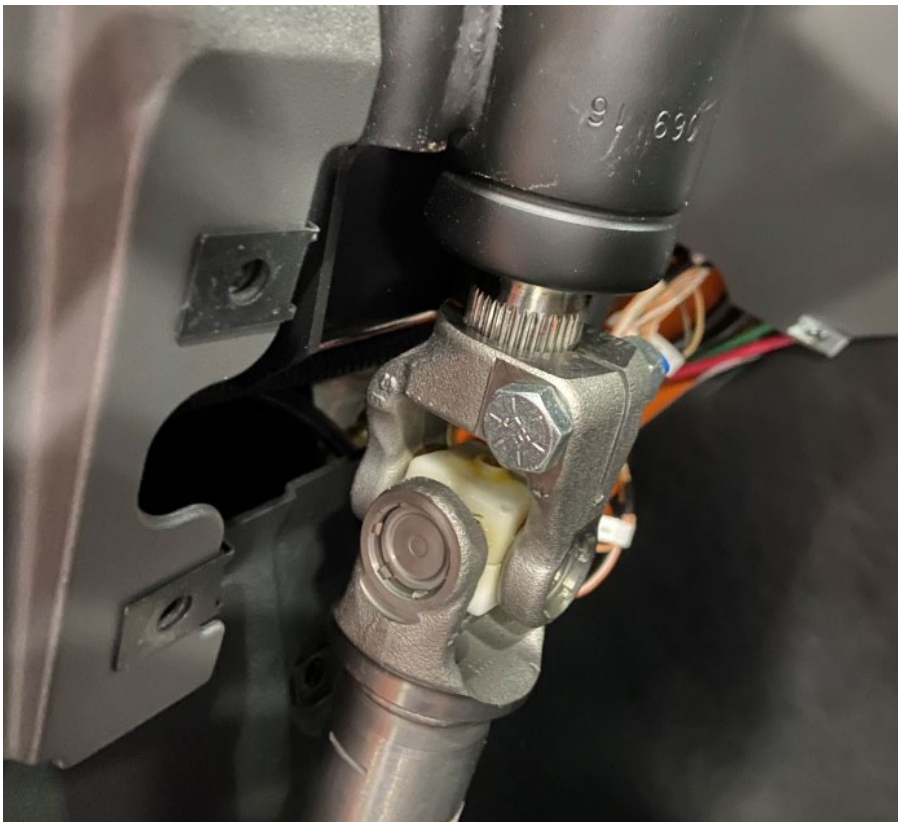
There are 23,473 vehicles affected by this recall (20,668 U.S., 2,624 Canada, 181 Export).

Repair Instructions

1. Secure vehicle for service.
2. Ensure the ignition switch is in the off position and disconnect the negative battery cable.
3. Remove the instrument cluster module and lay forward.

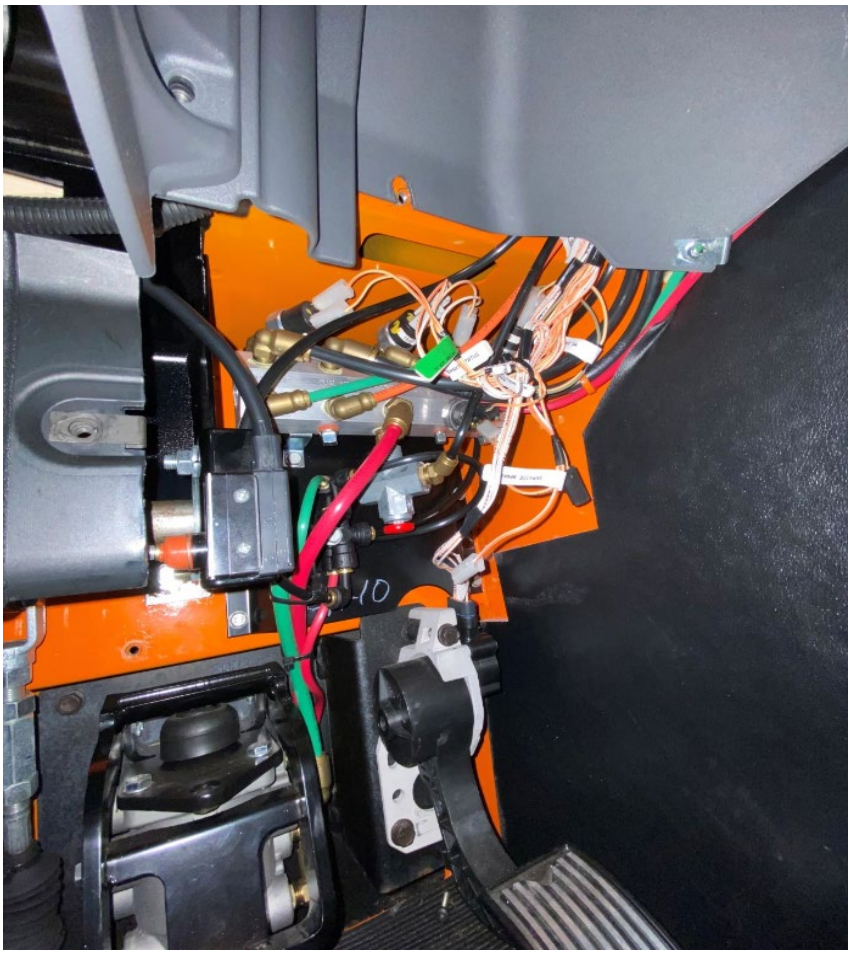
4. Remove HVAC (heating ventilation air conditioning) panel.

5. Remove outer steering column cover.

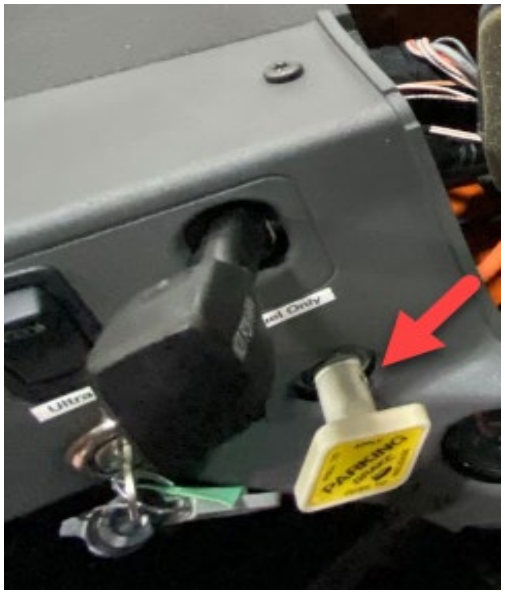


6. Remove inner steering column cover.

7. Remove Lower right kick panel.

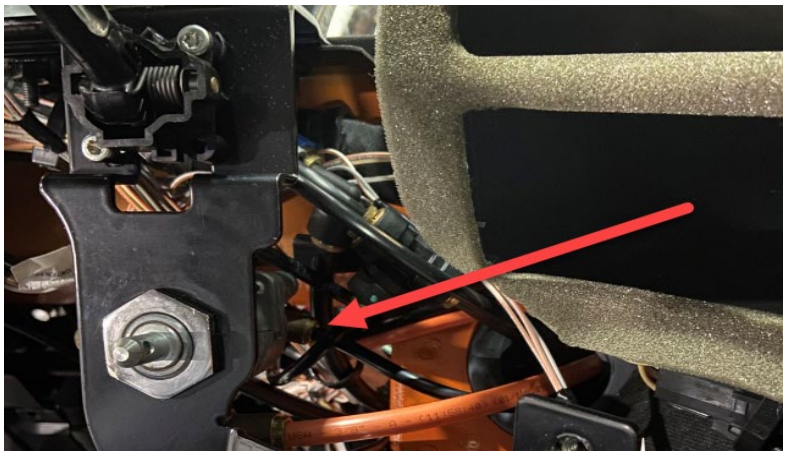


8. Remove the roll pin and the park brake button. Also remove the brake handle knob.

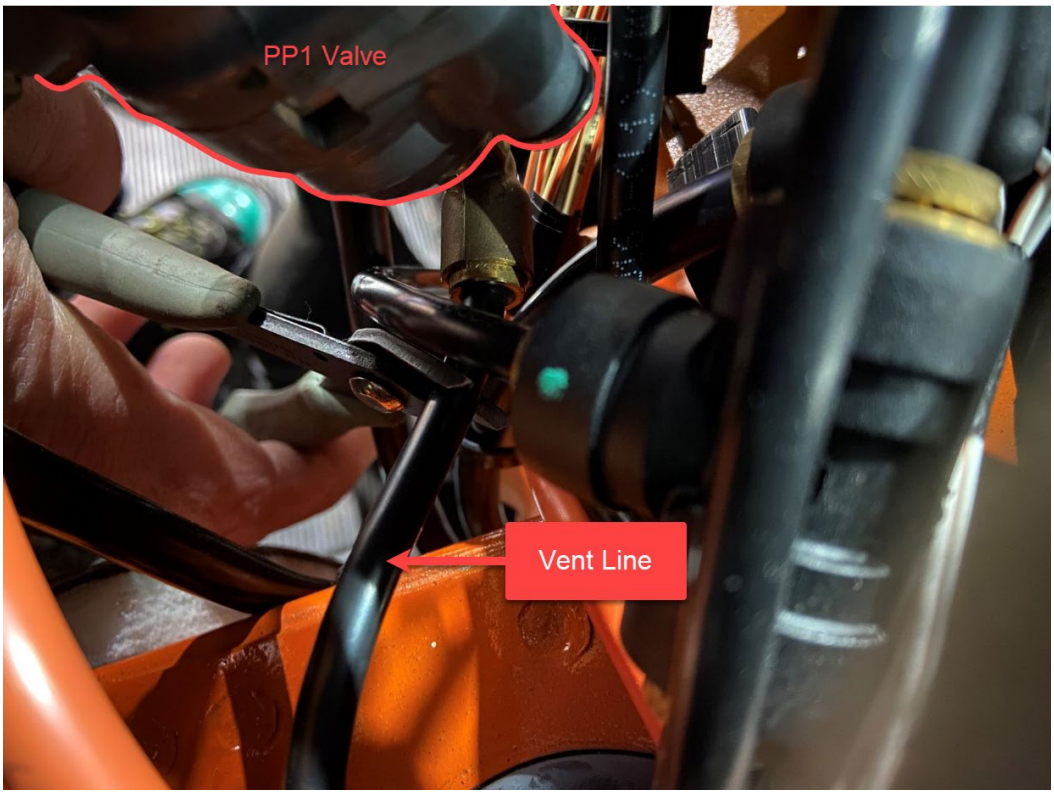


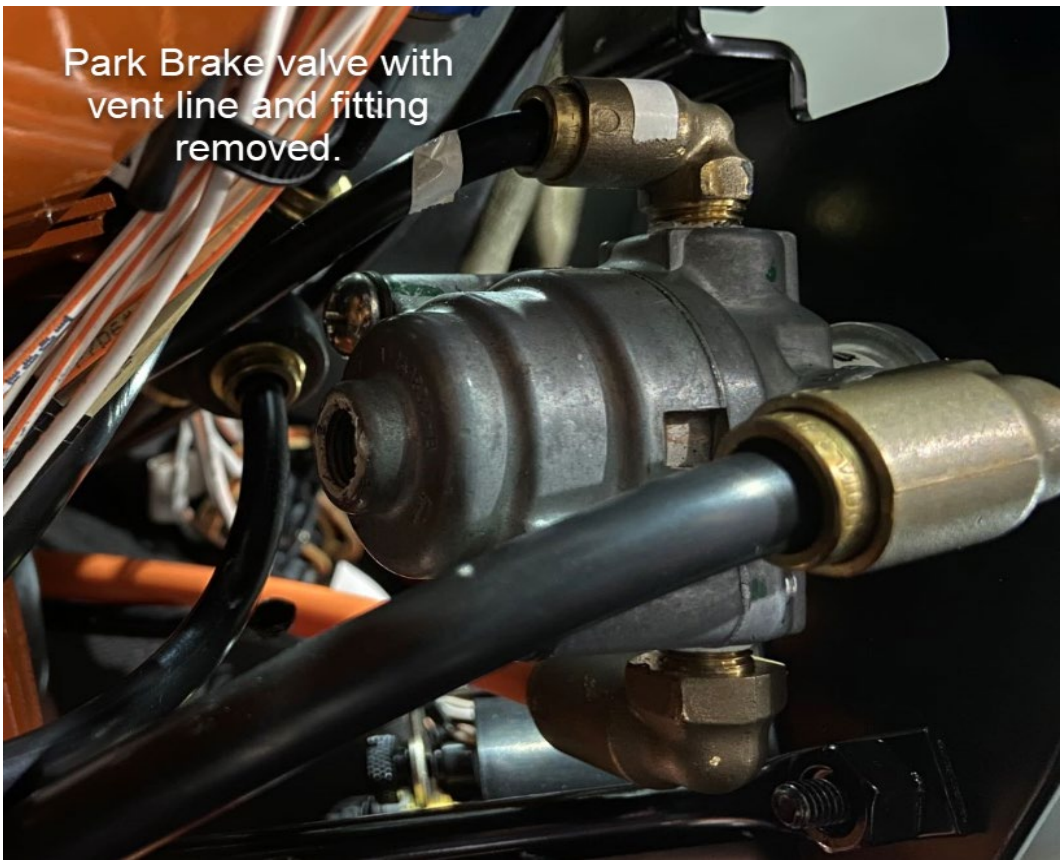
9. Remove the secondary gauge panel.

10. With all the panels removed, locate the park brake control valve (PP1) vent line. The vent line is directly opposite the yellow push pull button.



11. Cut the park brake control valve (PP1) vent line and remove the vent line fitting.





12. Reassemble vehicle in reverse operation of disassembly. Torque for the interior panel fasteners is 10 Nm ± 1.5 (7 lbf-ft ± 1).

NOTE: The left behind vent line can be left in place with no consequence. With the vent line and fitting removed the venting air will be heard by the operator every time the park brake valve is cycled. The sound of venting air will need to be explained to the operator/owner as normal operation.

NOTE: The park brake valve (aka PP1) does have an inspection process mandated by the manufacture. The guiding document for inspection and replacement is the Bendix bulletin number TCH-003-056. This document can be found by visiting Bendix.com – Document Library – search "TCH-003-056". This process should be read and followed for the life of the vehicle. See page 8 for attached document.

13. Release the vehicle to service.

REIMBURSEMENT

This repair is covered by an authorized safety recall. Reimbursement is obtained through the normal claim handling process.	
	UCHP Reimbursement
Claim Type (used only when uploading from the Dealer Business System)	40
Recall Status	
Vehicle repaired per instructions	1-Modified per instructions
Labor Codes	
Primary Labor Code: **1720-16-09-01 Campaign, General (0.1 x 6)**	0.6
Causal Part	25117989
Authorization Number	SC0433

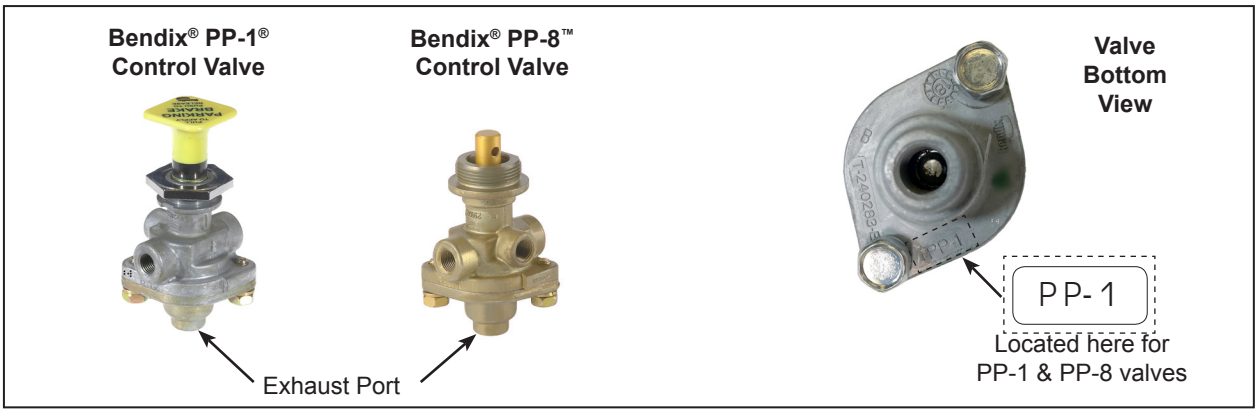
Note: Dealers are to perform Safety Recall on all subject vehicles at no charge to the vehicle owner regardless of mileage, age of vehicle or ownership (original purchaser or subsequent purchasers). Whenever vehicles are subject to a Safety Recall are brought to your dealership for service, or taken into your dealership vehicle inventory, it is strongly recommended that every effort be made to perform the recall correction before the vehicle is sold or released to the owner.

Technical Bulletin

Subject: BENDIX® PP-1® & PP-8™ PARK CONTROL VALVE WEAR AND REPLACEMENT NOTICE

This bulletin applies to all Bendix® PP-1® and PP-8™ valves in applications where the exhaust port is plumbed external to the cab. It is mostly applicable to vehicles used in high-park-brake-cycle count applications, like refuse vehicles or city buses.

When a heavily-worn PP-1 or PP-8 control valve is combined with restrictive exhaust plumbing, the vehicle park brake force may be reduced. Valve wear may be the result of high-park-brake-cycle count and/or sideloading. Sideloading can be caused by pushing or pulling the valve button at an angle and not in line with the valve or from hanging objects from the button. *See the table below for troubleshooting recommendations.*



Bendix® Valve Model	Exhaust Port			Recommendation
	Port Size	Fitting	Tube	
PP-1® & PP-8™	1/8" NPT	No	No	Maintain valve per Service Data sheet SD-03-3611.
		Yes	Yes or No	Follow the procedure below.
	1/4" NPT	No	No	Maintain valve per Service Data sheet SD-03-3611.
		Yes	Less than 1/2" OD	Follow the procedure below.

DIAGNOSING A LEAKING PP-1 AND PP-8 PARK CONTROL VALVE

When performing any inspection or service, follow the steps below and refer to the guidelines outlined in the PP-1 and PP-8 *Service Data sheet SD-03-3611*, or instruction sheet as applicable.

1. Run the vehicle until the air system reaches full reservoir pressure (120-135 psi). Turn off the vehicle.
2. Move the control valve button & plunger from side to side and up and down. Do not push the button in. If there is any play, or if audible leakage is detected, the valve must be replaced.
3. Identify the dash valve exhaust hose location (generally near the grill). With the button pulled out (exhaust position), there should be no audible leakage. Rotate the button and plunger in a clockwise direction – stopping every 90º to check for leakage. A second inspector near the end of the exhaust hose would be helpful for this procedure. There should be no audible leakage in the cab or from the exhaust hose at any point of rotation. Using a soap solution, check for leaks. The allowable leakage should not exceed a 1" bubble in 5 seconds at any location on the valve.
4. Push the button in (applied position) and check for leaks. The leakage should not exceed a 1" bubble in 3 seconds at any location on the valve.
5. Reduce the supply pressure. At a pressure from 60 to 20 psi, depending on the spring installed, the button should pop out automatically, exhausting the delivery volume. (This does not apply to the PP-8 or some PP-1 valves without an automatic exhaust feature).

For additional assistance contact the Bendix Tech Team at 1-800-AIR-BRAKE, option 2 (1-800-247-2725, option 2) or techteam@bendix.com.