



Recall Bulletin

File In Section: Product Recalls
Bulletin No.: 03025
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OFFICE OF DEFECTS
INVESTIGATION



03V-151

PRODUCT SAFETY RECALL

SUBJECT: 03025 – BRAKE PIPE SCORING

MODELS: 2003 CHEVROLET TRAILBLAZER
2003 GMC ENVOY
2003 OLDSMOBILE BRAVADA

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2003 model year Chevrolet TrailBlazer, GMC Envoy, and Oldsmobile Bravada vehicles. On some of these vehicles, the front left brake pipe may have been scored during manufacturing. The brake pipe may lose strength at the score location due to corrosion and fatigue resulting from brake fluid pressure, vibration, and temperature changes. As a result of this, the brake pipe may eventually fracture at the score location. If the brake pipe were to fracture, brake pedal travel would be increased and front brake performance would be reduced. In these instances, braking would be limited to that available with the remaining half system (rear brakes).

In all of the above cases, the brake light would illuminate after sufficient fluid leaked out of the system to activate the low fluid level switch in the master cylinder reservoir. These conditions would meet the half system requirements of MVSS 135.

CORRECTION

Dealers are to inspect the front left brake pipe and replace it, if necessary.

VEHICLES INVOLVED

Involved are certain 2003 Chevrolet TrailBlazer, GMC Envoy, and Oldsmobile Bravada vehicles built within these VIN breakpoints:

YEAR	DIVISION	MODEL	FROM	THROUGH
2003	Chevrolet	TrailBlazer	32100354	32152158
2003	GMC	Envoy	32100357	32152151
2003	Oldsmobile	Bravada	32100353	32151546

IMPORTANT: Dealers should confirm vehicle eligibility through **GMVIS** (GM Vehicle Inquiry System) or **GM Access Screen** (Canada only) or **DCS Screen 445** (IPC only)

before beginning recall repairs. [Not all vehicles within the above breakpoints may be involved.]

Involved vehicles have been identified by Vehicle Identification Number. Computer listings containing the complete Vehicle Identification Number, customer name and address data have been prepared, and are being furnished to involved dealers with the recall bulletin. The customer name and address data will enable dealers to follow up with customers involved in this recall. Any dealer not receiving a computer listing with the recall bulletin has no involved vehicles currently assigned.

These dealer listings may contain customer names and addresses obtained from Motor Vehicle Registration Records. The use of such motor vehicle registration data for any other purpose is a violation of law in several states/provinces/countries. Accordingly, you are urged to limit the use of this listing to the follow-up necessary to complete this recall.

PARTS INFORMATION

Parts required to complete this recall are to be obtained from General Motors Service Parts Operations (GMSPPO). Please refer to your "involved vehicles listing" before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Part Number	Description	Quantity/Vehicle
15059121	Pipe, Frt Brk	1
12377967 - U.S. 89021320 - Canada	Fluid, Hy Brk	1

SERVICE PROCEDURE

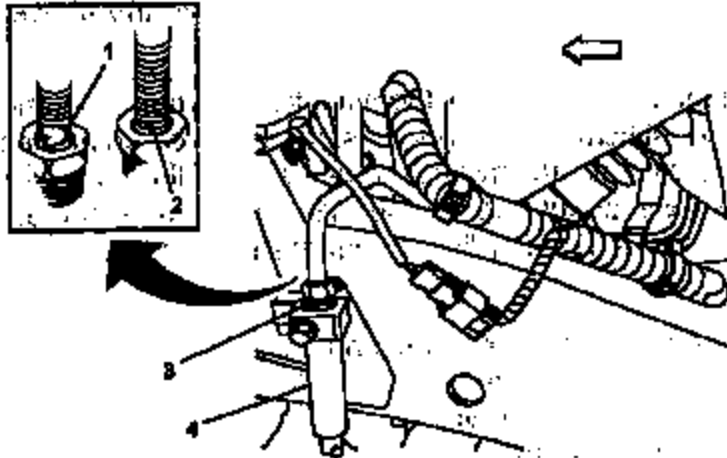
Tools Required (for brake pipe replacement, if required)

- J 29532 Diaphragm Type Brake Pressure Bleeder, or equivalent
- J 35589-A Brake Pressure Bleeder Adapter

The following procedure provides instruction for inspecting, and if necessary, replacing the brake pipe located between the left front brake caliper flex hose and the ABS modulator.

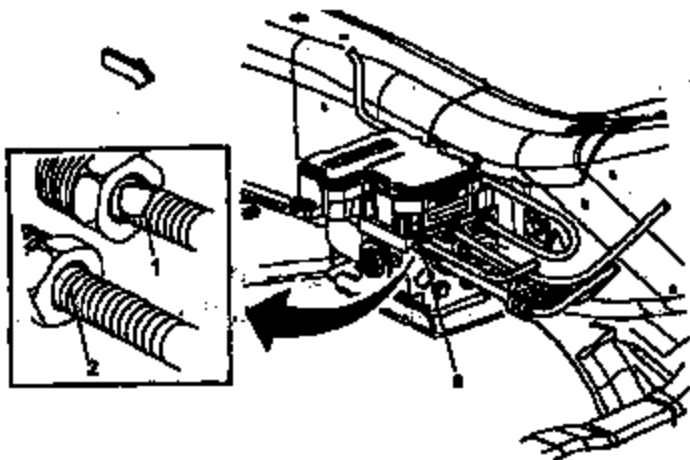
Inspection Procedure

1. Place the vehicle on a suitable hoist and turn the steering wheel to the full right.
2. Open the hood.
3. Raise and support the vehicle.



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4. Clean and remove any dirt from the left front brake pipe and flare nut (3) where it connects to the left front caliper flex hose (4).
5. Carefully inspect the brake pipe where it goes into the flare nut for a tooling mark (1) as shown above. The mark may be located at any point around the circumference of the pipe and a mirror and flashlight may be required to see it. There will NOT be any of the spiral lines or grooves (2) in the tooling mark.
 - o If the tooling mark IS present (1), then the brake pipe does NOT need to be replaced. Lower the vehicle and install the GM Recall Identification Label.
 - o If the brake pipe does NOT have the tooling mark (2), proceed to the next step of the inspection.



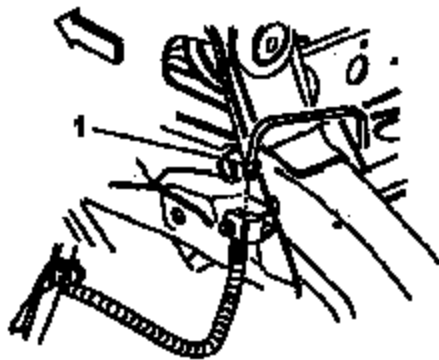
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6. Clean and remove any dirt from the left front brake pipe and flare nut (3) where it connects to the ABS modulator under the vehicle. The left front pipe is on the top row and closest to the center of the vehicle.

7. Carefully inspect the brake pipe where the pipe goes into the flare nut for the same type of tooling mark (1) as shown above. The mark may be located at any point around the circumference of the pipe and a mirror flashlight may be required to see it. There will NOT be any of the spiral lines or grooves (2) in the tooling mark.
 - o If the tooling mark IS present, then the brake pipe does NOT need to be replaced. Lower the vehicle and install the GM Recall Identification Label.
 - o If the tooling mark is NOT present, then the brake pipe must be replaced. Proceed to the Replacement procedure, below.

Replacement Procedure

This replacement procedure should only be performed if the results of the Inspection procedure indicated that the brake pipe needed to be replaced. Bleeding of the hydraulic system is done using a pressure bleeder and is limited to the left front brake. This pressure bleeding procedure is a shortened version of the full vehicle procedure found in the Service Manual. As a result, the labor time included in this recall for bleeding the brake system is less.

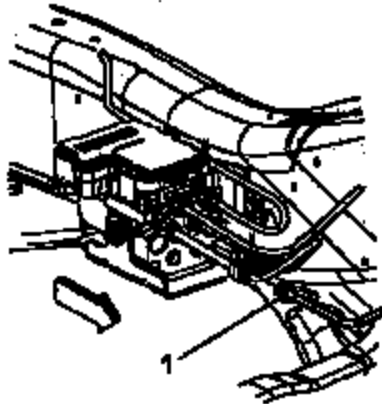


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Important

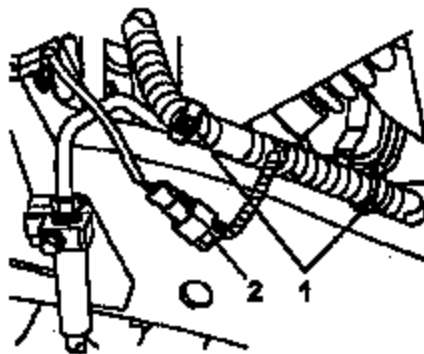
To avoid unnecessary brake fluid loss, have the new brake pipe ready to install before you begin removing the old pipe.

1. Disconnect the brake pipe (1) from the left front caliper brake hose fitting.



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2. From underneath the vehicle, disconnect the other end of the brake pipe (1) from the ABS modulator located on the inboard side of the left frame rail.
3. Disconnect the pipe from the lower retainers on the frame.
4. Disconnect the pipe from the upper retainer on the frame.



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5. Release the wiring harness from the retaining clips (2) on the frame and reposition the harness as necessary to allow for removal of the brake pipe.
6. Disconnect the wheel speed sensor harness connector (1) located on the outboard side of the left frame rail near the front caliper brake hose fitting.
7. From the left front wheelhouse, remove the brake pipe from the vehicle.
8. Position the new brake pipe to the vehicle and install it in the retainers on the frame.

Notice

To avoid damaging the threads on the ABS modulator, flare nuts, or the front brake hose fitting, use only your fingers to start the threads. Do not use tools to start threading the flare nut into the ABS modulator or the front brake hose fitting.

9. Connect the brake pipe to the ABS modulator and tighten the flare nut.

Tighten to 20 N·m (15 lb ft).

10. Connect the brake pipe to the left front caliper brake hose fitting. **Tighten**

Tighten the flare nut to 20 N·m (15 lb ft).

11. Position the wiring harness to the frame and secure in the retainers.
12. Connect the wheel speed sensor harness connector.

Important

- Do not drive the vehicle until the brake pedal feels firm
- Do not reuse brake fluid that is used during bleeding

13. Lower the vehicle as necessary to allow for manual bleeding of the left front brake assembly.

Caution

Refer to Brake Fluid Caution in the Cautions and Notices in the appropriate Service Manual.

Notice

Refer to Brake Fluid Effects on Paint and Electrical Components Notice in Cautions and Notices in the appropriate Service Manual.

Notice

When adding fluid to the brake master cylinder reservoir, use only DOT-3 brake fluid from a clean, sealed brake fluid container. The use of any type of fluid other than the recommended type of brake fluid may cause contamination, which could result in damage to the internal rubber seals and/or rubber linings of hydraulic brake system components.

Important

Clean the outside of the reservoir on and around the reservoir cap prior to removing the cap and diaphragm in the next step.

14. Fill the brake master cylinder reservoir with Delco Supreme 11[®], GM P/N 12377967, Canadian P/N 89021320, or equivalent DOT-3 brake fluid from a clean sealed brake fluid container.
15. Install the J 35589-A to the brake master cylinder reservoir.
16. Check the brake fluid level in the J 29532, or equivalent. Add Delco Supreme 11[®], or equivalent DOT-3 brake fluid from a clean sealed brake fluid container as necessary to bring the level to approximately the half-full point.
17. Connect the J 29532, or equivalent, to the J 35589-A.
18. Charge the J 29532, or equivalent, air tank to 175-205 kPa (25-30 psi).
19. Open the J 29532, or equivalent, fluid tank valve to allow pressurized brake fluid to enter the brake system.
20. Wait approximately 30 seconds, and then inspect the new left front brake pipe and fittings for leaks. Any brake leaks identified must be repaired prior to completing this bleed procedure.

21. Install a proper size bpx-end wrench onto the left front wheel hydraulic circuit bleeder valve (screw) located on the caliper.
22. Install a transparent hose over the end of the bleeder valve.
23. Submerge the open end of the transparent hose into a transparent container partially filled with DOT-3 brake fluid from a clean, sealed brake fluid container.
24. Loosen the bleeder valve to purge the air from the left front wheel hydraulic circuit. Allow fluid to flow until air bubbles stop flowing from the bleeder, and then tighten the bleeder valve.
25. Close the J 29532, or equivalent, fluid tank valve, and then disconnect the J 29532, or equivalent, from the J 35589-A.
26. Remove the J 35589-A from the brake master cylinder reservoir.
27. Fill the brake master cylinder reservoir to the maximum-fill level with Delco Supreme 11[®], or equivalent DOT-3 brake fluid from a clean, sealed brake fluid container.
28. Connect a Tech 2 to the vehicle's diagnostic link connector (DLC) and perform the automatic bleed procedure.
29. After completion of the automatic bleed procedure, slowly depress the brake fluid and verify that it feels firm. Release the pedal.
30. Verify that the fluid in the master cylinder reservoir is at the maximum-fill level.
31. Install the GM Recall Identification Label.

RECALL IDENTIFICATION LABEL – For US and IPC

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five (5) digit dealer code of the dealer performing the recall service. This information may be inserted with a typewriter or a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. When installing the Recall Identification Label, be sure to pull the tab to allow adhesion of the clear protective covering. Additional Recall Identification Labels for US dealers can be obtained from Dealer Support Materials by either ordering on the web from DWD Store, gm-dealerworld.com, or calling 1-866-700-0001 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Request Item Number S-1015 when ordering.

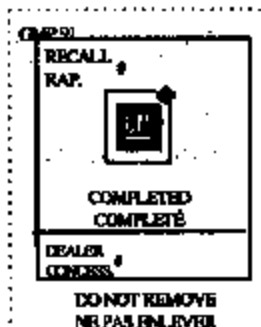


Additional Recall Identification Labels for IPC dealers can be obtained from your Regional Marketing Office.

RECALL IDENTIFICATION LABEL – For CANADA

Place a Recall Identification Label on each vehicle corrected in accordance with the instructions outlined in this Product Recall Bulletin. Each label provides a space to include the recall number and the five (5) digit dealer code of the dealer performing the recall service. This information may be inserted with a typewriter or a ballpoint pen.

Put the Recall Identification Label on a clean and dry surface of the radiator core support in an area that will be visible to people servicing the vehicle. **Additional Recall Identification Labels for Canadian dealers can be obtained from DGN by calling 1-800-668-5539 (Monday-Friday, 8:00 a.m. to 5:00 p.m. EST). Ask for Item Number GMP 91 when ordering.**



COURTESY TRANSPORTATION

The General Motors Courtesy Transportation program is intended to minimize customer inconvenience when a vehicle requires a repair that is covered by the New Vehicle Limited Warranty. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product recall is very important in maintaining customer satisfaction. Dealers are to ensure that these customers understand that shuttle service or some other form of courtesy transportation is available and will be provided at no charge. Dealers should refer to the General Motors Service Policies and Procedures Manual for Courtesy Transportation guidelines.

CLAIM INFORMATION

Submit a Product Recall Claim with the information indicated below:

REPAIR PERFORMED	PART COUNT	PART NO.	PARTS ALLOW	CC-FC	LABOR OP	LABOR HOURS
Inspect Frit Left Brake Pipe, No Further Action Req'd.	0	N/A	N/A	MA-96	V1025	0.3
Inspect & Replace Frit Left Brake Pipe	2	---	**	MA-96	V1026	0.8
Courtesy Transportation	N/A	N/A	N/A	MA-96	***	N/A

- * For Program Administrative Allowance, add 0.1 hours to the "Labor Hours".
- ** The "Parts Allowance" should be the sum total of the current GMSPO Dealer net price plus applicable Mark-Up or Landed Cost Mark-Up (for IPC) for brake pipe and brake fluid needed to complete the repair.
- *** Submit courtesy transportation using normal labor operations for courtesy transportation as indicated in the GM Service Policies and Procedures Manual.

Refer to the General Motors WINS Claims Processing Manual for details on Product Recall Claim Submission.

CUSTOMER NOTIFICATION – For US and CANADA

Customers will be notified of this recall on their vehicles by General Motors (see copy of customer letter included with this bulletin).

CUSTOMER NOTIFICATION – For IPC

Letters will be sent to known owners of record located within areas covered by the US National Traffic and Motor Vehicle Safety Act. For owners outside these areas, dealers should notify customers using the attached sample letter.

DEALER RECALL RESPONSIBILITY – For US and IPC (US States, Territories, and Possessions)

The US National Traffic and Motor Vehicle Safety Act provides that each vehicle that is subject to a recall of this type must be adequately repaired within a reasonable time after the customer has tendered it for repair. A failure to repair within sixty days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within a reasonable time, the customer may be entitled to an identical or reasonably equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation. To avoid having to provide these burdensome remedies, every effort must be made to promptly schedule an appointment with each customer and to repair their vehicle as soon as possible. In the recall notification letters, customers are told how to contact the US National Highway Traffic Safety Administration if the recall is not completed within a reasonable time.

DEALER RECALL RESPONSIBILITY - ALL

All unsold new vehicles in dealers' possession and subject to this recall must be held and inspected/repaired per the service procedure of this recall bulletin before customers take possession of these vehicles.

Dealers are to service all vehicles subject to this recall at no charge to customers, regardless of mileage, age of vehicle, or ownership, from this time forward.

Customers who have recently purchased vehicles sold from your vehicle inventory, and for which there is no customer information indicated on the dealer listing, are to be contacted by the dealer. Arrangements are to be made to make the required correction according to the instructions contained in this bulletin. This could be done by mailing to such customers, a copy of the customer letter accompanying this bulletin. Recall follow-up cards should not be used for this purpose, since the customer may not as yet have received the notification letter.

In summary, whenever a vehicle subject to this recall enters your vehicle inventory, or is in your dealership for service in the future, you must take the steps necessary to be sure the recall correction has been made before selling or releasing the vehicle.

All bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform those technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the tools, equipment, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your dealer/retailer for information on whether your vehicle may benefit from the information.



**We Support
Voluntary Technician
Certification**

Dear General Motors Customer:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Reason For This Recall: General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2003 model year Chevrolet TrailBlazer, GMC Envoy, and Oldsmobile Bravada vehicles. On some of these vehicles, the front left brake pipe may have been scored during manufacturing. The brake pipe may lose strength at the score location due to corrosion and fatigue resulting from brake fluid pressure, vibration, and temperature changes. As a result of this, the brake pipe may eventually fracture at the score location. If the brake pipe were to fracture, brake pedal travel would be increased and front brake performance would be reduced. In these instances, braking would be limited to that available with the remaining half system (rear brakes).

In all of the above cases, the brake light would illuminate after sufficient fluid leaked out of the system to activate the low fluid level switch in the master cylinder reservoir.

What Will Be Done: Your GM dealer will inspect the front left brake pipe and replace it, if necessary. This service will be performed for you at no charge.

How Long Will It Take? This service correction will take approximately 50 minutes. However, due to service scheduling requirements, your dealer may need your vehicle for a longer period of time.

Contacting Your Dealer: Please contact your dealer as soon as possible to arrange a service date. Parts are available and instructions for making this correction have been sent to your dealer. Your dealer is best equipped to obtain parts and provide services to correct your vehicle as promptly as possible. Should your dealer be unable to schedule a service date within a reasonable time, you should contact the appropriate Customer Assistance Center at the listed number below:

Division	Number	Text Telephones, TTY
Chevrolet	1-800-630-2438	1-800-833-2438
GMC	1-866-996-9463	1-800-462-8583
Oldsmobile	1-800-630-6537	1-800-833-6537
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If, after contacting the appropriate Customer Assistance Center, you are still not satisfied that we have done our best to remedy this condition without charge and within a reasonable time, you may wish to write the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590 or call 1-888-327-4236.

Customer Reply Card: The attached customer reply card identifies your vehicle. Presentation of this card to your dealer will assist in making the necessary correction in the shortest possible time. If you no longer own this vehicle, please let us know by completing the attached and mailing it in the postage paid envelope.

Courtesy Transportation: If your vehicle is within the New Vehicle Limited Warranty your dealer may provide you with shuttle service or some other form of courtesy transportation while your vehicle is at the dealership for this repair. Please refer to your Owner's Manual and your dealer for details on Courtesy Transportation.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your safety and continued satisfaction with our products.

General Motors Corporation

Enclosure