File In Section: Product Recalls

Bulletin No.: 10323

Date: November 2010







PRODUCT SAFETY RECALL

SUBJECT: Power Steering Fluid Leak – Replace Power Steering Line

MODELS: 2010 Cadillac SRX

CONDITION

General Motors has decided that a defect, which relates to motor vehicle safety, exists in **certain** 2010 model year Cadillac SRX vehicles. Some of these vehicles have a condition in which processing of the crimp during manufacture of the power steering pressure line may have damaged the line. If the line was damaged, a power steering fluid leak may develop. If there is a sufficient amount of fluid loss, the driver will hear noise from the power steering pump and increased effort may be required for steering. If power steering fluid sprays onto hot engine parts, an engine compartment fire could occur.

CORRECTION

Dealers are to inspect (using a special gauge tool) and, if necessary, replace the power steering line on vehicles equipped with a 3.0L engine (LF1). Due to the inability to access the power steering line with the special gauge tool on the 2.8L engine (LAU), without removing the line first, dealers are to replace the power steering line on these vehicles.

VEHICLES INVOLVED

Involved are **certain** 2010 model year Cadillac SRX vehicles equipped with a 2.8L gas engine (LAU) or 3.0L gas engine (LF1), and built within these VIN breakpoints:

Year	Division	Model	From	Through
2010	Cadillac	SRX	AS522680	AS571142

Important: Dealers are to confirm vehicle eligibility prior to beginning repairs by using the Required Field Actions section in the Global Warranty system. Not all vehicles within the above breakpoints may be involved.

For dealers with involved vehicles, a listing with involved vehicles containing the complete vehicle identification number, customer name, and address information has been prepared and will be provided to US and Canadian dealers through the GM GlobalConnect Recall Reports, or sent directly to export dealers. Dealers will not have a report available if they have no involved vehicles currently assigned.

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

PART INFORMATION

Parts required to complete this recall are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). 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
20953778	Hose, P/S Gr InI (2.8L – LAU)	1
20893352*	Hose, P/S Gr InI (3.0L – LF1)	1
88861003 – US 19264717 – CN	Fluid, A/Trns (Dexron VI (Dexron 6))	1 (If Req'd)

^{*} It is estimated that very few vehicles will require the hose, P/N 20893352. Do not order parts unless the inspection procedure determines replacement is required.

SPECIAL TOOL

On October 29, 2010, each Cadillac dealer was shipped a Gauge Tool, CH-50623, for use on 3.0L (LF1) engines in this recall. This tool will be shipped UPS-GROUND. All Cadillac dealers should have the tool no later than November 9, 2010. This tool is being furnished at no charge. Additional tools, if required, may be purchased by contacting SPX Kent-Moore at 1-800-GM-TOOLS (1-800-468-6657).

SERVICE PROCEDURE

Power Steering Gear Inlet Pipe/Hose Inspection/Replacement (LF1)

Special Tools

• CH-50623 Gauge Tool

This procedure includes an inspection to gauge check the diameter of the hose mid crimp body. Over crimping (an undersized crimp diameter) may have damaged the structure of the hose.

Because the crimp can be tapered (smaller diameter at one end) and oblong in shape, the gauge check must be performed at four locations around the diameter at each end of the crimped section.

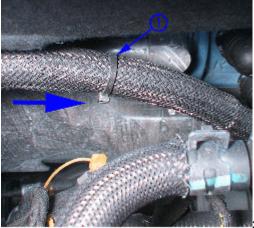
Note: An undersized crimp at just one of the eight positions is considered an unacceptable crimp

1. Remove the intake manifold cover.



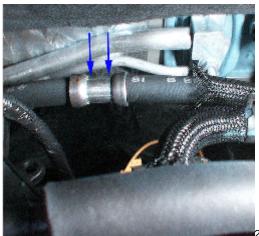
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2. Remove the power steering gear inlet pipe/hose upper retaining bolt.



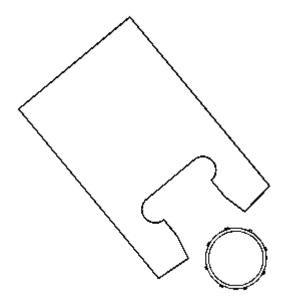
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3. Remove the tie strap (1) and slide the mesh sleeve down the hose to expose the mid crimp.



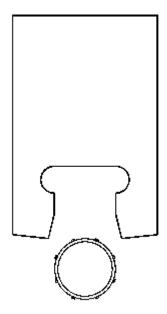
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Position #1



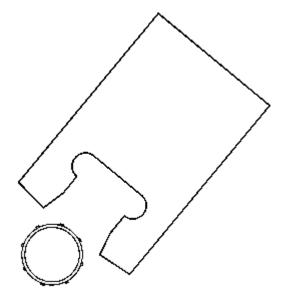
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Position #2

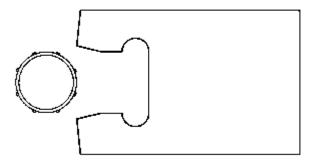


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Position #3



Position #4



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4. Use *CH-50623* to check the crimp diameter at all 4 crimp diameter pairs at each end (indentified with arrows in the above illustration) of the crimped section. Attempt to slide the *CH-50623* over the crimp at 4 different locations, working your way around the crimp for a total of 8 checks (4 checks at each end).

Note: Some undersized (unacceptable) crimp diameters near the gauge size may require the tool to be wiggled slightly for it to slide over the crimp. Use feel, not excessive force to perform this step.

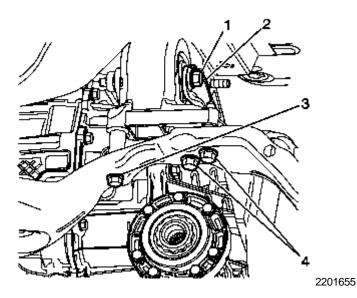
Note: The crimp diameter check must be performed on the surfaces between the crimp ridges.

Note: The illustration below shows the inspection being done on the crimp with the power steering gear inlet pipe/hose out of the vehicle for demonstration purposes only. The procedure should be done with the power steering gear inlet pipe/hose in the vehicle.





- 4.1 If the *CH-50623* will not slide over and bottom out against the crimp at any of the locations, the crimp checks good (is within specifications) and no further action is required (portion B of the above illustration). Slide the mesh sleeve back into its original position under the retaining clamp. If the mesh is frayed, it may be necessary to wrap it with tape to slide it under the clamp. Reinstall the retaining bolt and tighten to 9 N·m (80 lb in). Reinstall the intake manifold cover.
- 4.2 If the *CH-50623* slides over and bottoms out against the crimp at any one of the 4 crimp diameter pairs (portion A of the above illustration), the power steering gear inlet pipe/hose must be replaced. Proceed to Step 5.
- 5. Place a drain pan under the vehicle.
- 6. Remove as much power steering fluid from the reservoir as possible.
- 7. Install the engine support fixture.
- 8. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in SI.
- 9. Remove the front tire and wheel assemblies.

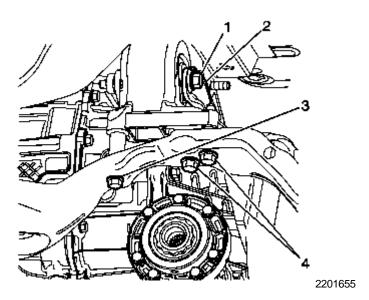


- 10. Remove the rear transmission mount through bolt (1).
- 11. Use mechanics wire in order to suspend the steering gear from the powertrain.
- 12. Remove the steering gear fasteners.
- 13. Disconnect the lower electronic suspension front vertical accelerometer link, if equipped.
- 14. Use a jack in order to support the rear of the drivetrain and front suspension frame.
- 15. Remove the reinforcement bolts.
- 16. Remove the rear frame-to-body bolts.
- 17. Lower the rear of the frame in order to access the hose on the steering gear.
- 18. Remove the power steering gear inlet pipe/hose lower retaining bolt.
- 19. Disconnect the power steering gear inlet pipe/hose from the steering gear.
- 20. Disconnect the power steering gear inlet pipe/hose from the power steering pump.
- 21. Remove the power steering gear inlet pipe/hose from the vehicle.

- 22. Position the power steering gear inlet pipe/hose in the vehicle.
- 23. Connect the power steering gear inlet pipe/hose to the power steering pump. Tighten the fitting to 34 N·m (25 lb ft).
- 24. Connect the power steering gear inlet pipe/hose to the steering gear. Tighten the fitting to 34 N·m (25 lb ft).
- 25. Install the power steering gear inlet pipe/hose lower retaining bolt. Tighten the bolt to 9 N⋅m (80 lb in).
- 26. Raise the rear of the frame.
- 27. Install the rear frame-to-body bolts. Tighten the bolts to 100 N⋅m (74 lb ft) plus 90 degrees.
- 28. Install the reinforcement bolts. Tighten the bolts to 45 N·m (33 lb ft) plus 30 degrees.
- 29. Remove jack from the rear of the drivetrain and front suspension frame.
- 30. Remove the mechanics wire from the steering gear.
- 31. Install the steering gear fasteners. Tighten the bolts to 60 N⋅m (44 lb ft) plus 120 degrees.
- 32. Install the rear transmission mount through bolt. Tighten the bolt to 100 N·m (74 lb ft).
- 33. Connect the lower electronic suspension front vertical accelerometer link, if equipped.
- 34. Install the front tire and wheel assemblies.
- 35. Lower the vehicle.
- 36. Remove the engine support fixture.
- 37. Install the power steering gear inlet pipe/hose upper retaining bolt. Tighten the bolt to 9 N⋅m (80 lb in).
- 38. Install the intake manifold cover.
- 39. Fill and bleed the power steering system. Refer to *Power Steering System Bleeding* in SI.
- 40. Clean any excess power steering fluid from the vehicle.
- 41. Remove the drain pan.

Power Steering Gear Inlet Pipe/Hose Replacement (LAU)

- 1. Place a drain pan under the vehicle.
- 2. Remove as much power steering fluid from the reservoir as possible.
- 3. Install the engine support fixture.
- 4. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in SI.
- 5. Remove the front tire and wheel assemblies.



- 6. Remove the rear transmission mount through bolt (1).
- 7. Use mechanics wire in order to suspend the steering gear from the powertrain.
- 8. Remove the steering gear fasteners.
- 9. Disconnect the lower electronic suspension front vertical accelerometer link, if equipped.
- 10. Use a jack in order to support the rear of the drivetrain and front suspension frame.
- 11. Remove the reinforcement bolts.
- 12. Remove the rear frame-to-body bolts.
- 13. Lower the rear of the frame in order to access the hose on the steering gear.
- 14. Disconnect the power steering gear inlet pipe/hose from the steering gear.
- 15. Disconnect the power steering gear inlet pipe/hose from the power steering pump.
- 16. Remove the power steering gear inlet pipe/hose from the vehicle.
- 17. Position the power steering gear inlet pipe/hose in the vehicle.
- 18. Connect the power steering gear inlet pipe/hose to the power steering pump. Tighten the fitting to 34 N·m (25 lb ft).
- 19. Connect the power steering gear inlet pipe/hose to the steering gear. Tighten the fitting to 34 N·m (25 lb ft).
- 20. Raise the rear of the frame.
- 21. Install the rear frame-to-body bolts. Tighten the bolts to 100 N⋅m (74 lb ft) plus 90 degrees.
- 22. Install the reinforcement bolts. Tighten the bolts to 45 N·m (33 lb ft) plus 30 degrees.
- 23. Remove the jack from the rear of the drivetrain and front suspension frame.
- 24. Remove the mechanics wire from the steering gear.
- 25. Install the steering gear fasteners. Tighten the bolts to 60 N⋅m (44 lb ft) plus 120 degrees.
- 26. Install the rear transmission mount through bolt. Tighten the bolt to 100 N⋅m (74 lb ft).

- 27. Connect the lower electronic suspension front vertical accelerometer link, if equipped.
- 28. Install the front tire and wheel assemblies.
- 29. Lower the vehicle.
- 30. Remove the engine support fixture.
- 31. Fill and bleed the power steering system. Refer to *Power Steering System Bleeding* in SI.
- 32. Clean any excess power steering fluid from the vehicle.
- 33. Remove the drain pan.

COURTESY TRANSPORTATION – For US and Canada

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 Warranties. The availability of courtesy transportation to customers whose vehicles are within the warranty coverage period and involved in a product program 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.

WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below.

Labor		Labor
Code	Description	Time
V2342	Inspect Power Steering Gear Inlet Pipe/Hose – No Replacement Required (3.0L – LF1 Engine Only)	0.5
V2343		
	- Turbo Engine (LAU)	1.4
	- Non Turbo Engine (LF1)	1.9

CUSTOMER NOTIFICATION – For US and Canada

General Motors will notify customers of this recall on their vehicle (see copy of customer letter included with this bulletin).

CUSTOMER NOTIFICATION – For Export

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.

<u>DEALER RECALL RESPONSIBILITY</u> – For US and Export (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 - AII

All unsold new vehicles in dealers' possession and subject to this recall <u>must</u> be held and inspected/repaired per the service procedure of this recall bulletin <u>before</u> 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. A copy of the customer letter is provided in this bulletin for your use in contacting customers. 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.



November 2010

Dear General Motors Customer:

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

General Motors has decided that a defect, which relates to motor vehicle safety, exists in certain 2010 model year Cadillac SRX vehicles. As a result, GM is conducting a safety recall. We apologize for this inconvenience. However, we are concerned about your safety and continued satisfaction with our products.

IMPORTANT

- Your vehicle is involved in safety recall 10323.
- Schedule an appointment with your GM dealer.
- This service will be performed for you at **no charge**.

Why is your vehicle being recalled?

Your vehicle may have a condition in which processing of the crimp during manufacture of the power steering pressure line may have damaged the line. If the line was damaged, a power steering fluid leak may develop. If there is a sufficient amount of fluid loss, you will hear noise from the power steering pump and increased effort may be required for steering. If power steering fluid sprays onto hot engine parts, an engine compartment fire could occur.

What will we do?

Your GM dealer will inspect and, if necessary, replace the power steering line. This service will be performed for you at **no charge**. Because of service scheduling requirements, it is likely that your dealer will need your vehicle longer than the actual service correction time of approximately 30 minutes to 2 hours, depending on the service required.

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 Manual and your dealer for details on courtesy transportation.

What should you do?

You should contact your GM dealer to arrange a service appointment as soon as possible.

Do you have questions?

If you have questions or concerns that your dealer is unable to resolve, please contact the appropriate Customer Assistance Center at the number listed below. More information about your vehicle can be found at the Owner Center at www.gmownercenter.com.

Division	Number	Text Telephones (TTY)
Cadillac	1-866-982-2339	1-800-833-2622
Guam	1-671-648-8450	
Puerto Rico – English	1-800-496-9992	
Puerto Rico – Español	1-800-496-9993	
Virgin Islands	1-800-496-9994	

If after contacting your dealer and the Customer Assistance Center, you are still not satisfied 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, 1200 New Jersey Avenue, SE, Washington DC 20590, or call the toll-free Vehicle Safety Hotline at 1.888.327.4236 (TTY 1.800.424.9153), or go to http://www.safercar.gov.

Federal regulation requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

Jim Moloney General Director, Customer and Relationship Services