HYUNDAI NEW THINKING. NEW POSSIBILITIES.	GROUP	NUMBER
Technical Service Bulletin	**CAMPAIGN**	**17-01-005**
	DATE	MODEL(S)
	JANUARY 2017	**SANTA FE (CM)**

SUBJECT: SANTA FE (CM) UNDERBODY CORROSION PREVENTATIVE SERVICE (SERVICE CAMPAIGN 947)

★ IMPORTANT

***** Retail Vehicles Only *****

Dealers must perform this Service Campaign whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: In some areas, a vehicle's underbody may exhibit corrosion due to road salt usage. As a precautionary measure, cavity wax coating is applied to the internal surfaces of underbody components, and an undercoating spray is applied to the bottom exterior surfaces of specified underbody components. This bulletin describes the procedure to perform this preventative service on certain Santa Fe (CM) vehicles.

Applicable Vehicles:
VERIFY THAT THE VEHICLE IS IDENTIFIED AS AFFECTED BY THE SERVICE CAMPAIGN VIA WEBDCS.

1. **Model:** 2007-2010MY Santa Fe (CM)
2. **Production Date Range:** From April 19, 2006 – November 22, 2010.
3. **Areas:** Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, West Virginia, Wisconsin, and the District of Columbia

✶ IMPORTANT

There are circumstances under which vehicles not currently registered or have never been registered in a “salt belt” state may be eligible for this Campaign. These circumstances include:

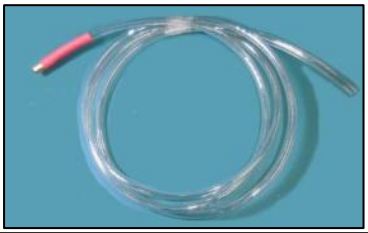
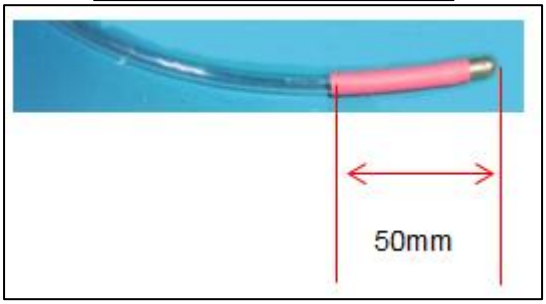
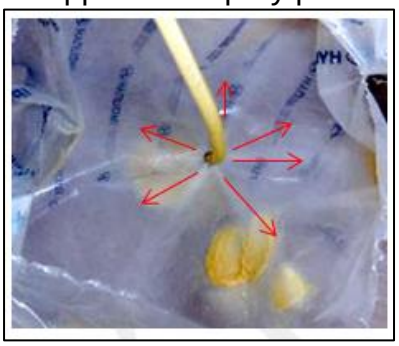
Vehicles that have relocated into a “salt belt” area and/or vehicles registered in a “non-salt belt” state and driven in a “salt belt” area. If it is determined that an owner of a vehicle within the affected VIN production date range relocates or has operated their vehicle in a “salt belt” area, the dealer should perform the campaign procedure. The dealer should perform this procedure at no cost to the customer, and the Hyundai Warranty PA Center must be contacted prior to repair and submission of Warranty Claim.

✶ NOTE

If the owner of a vehicle within the affected VIN production date range requests an undercarriage inspection of their vehicle, the inspection should be performed at no charge to the customer.

Parts Information:

Part Name	Image / Part Number	Remark
Cavity Wax	 00232-19034	Use about half a can per vehicle.
Undercoat Spray	 00232-19035	Use about 1 can per vehicle.
Wax Spray Gun	 00232-19036	Regulate air pressure to 70 psi. ***If wax output is slow***, prime the gun by blocking the nozzle with a rag, and spraying the gun until the flow of wax increases.

"Inside" Nozzle	  09624-2H101-QQH	This is a newly developed nozzle that has an improved wax application spray pattern.  The pink tubing is to signal the user to stop spraying when pulling the nozzle out. <u>This nozzle must be used for this service procedure.</u>
Plug	 17313-12000	Plug is to be used to fill a 12mm hole drilled into the front frame. ***<u>QTY: 2 per vehicle</u>***

Tools & Equipment Required:

Tool Name	Image	Remark
Air Nozzle		
Goggles		***NOTICE*** Wear protective goggles and respiratory protection when performing the procedures in this bulletin. This procedure should be performed in a well-ventilated area.
Mask		

Mallet		
Wire Brush		
Plastic bags		Trash bags large enough to cover wheel/tire assemblies.
Drill and Bit		12mm drill bit

Warranty Information:

Model	Op. Code	Operation	Op. Time	Causal Part	Nature Code	Cause Code
CM	50CA12R0	APPLYING CAVITY WAX & BLACK UNDER COAT TO THE UNDERBODY (CMa)	0.8 M/H	62400-2B000	Q55	ZZ8

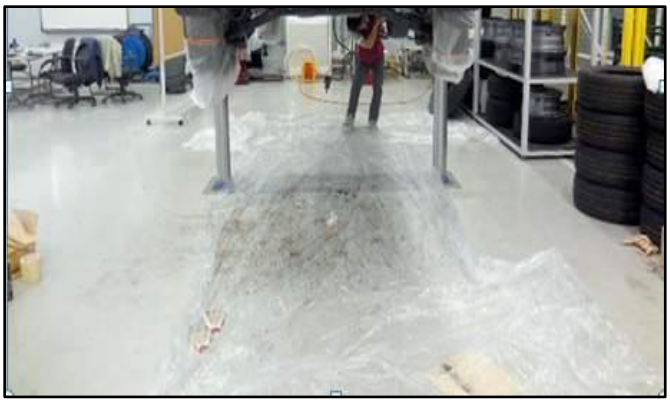
NOTE 1: Submit Claim on Campaign Claim Entry Screen.

NOTE 2: Each labor operation will reimburse applicable undercoating and cavity wax in sublet.

NOTE 3: If a part is found in need of replacement while performing Service Campaign 947, please submit a separate claim using the same Repair Order used for the Service Campaign.

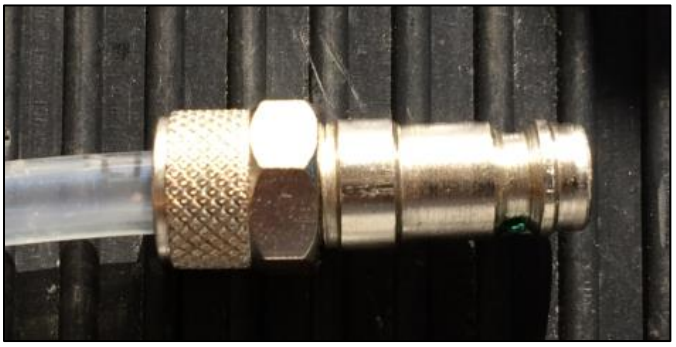
Service Procedure Notes:

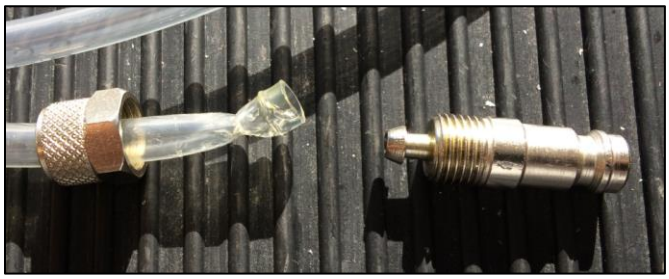
1. When applying the cavity wax, the floor might be contaminated. It is recommended to put a plastic vinyl sheet on the floor before applying wax.



2. **Wax gun preparation:**

2a. Remove the compression fitting from the nozzle assembly that originally comes with the wax gun by unscrewing the nut, then removing the fitting from the tube.





2b. Attach the compression fitting to the tubing on the new nozzle assembly.

2c. Fill wax gun reservoir with cavity wax.

Prime the wax gun by spraying into a trash bag (or similar) until a light mist is visibly coming out of the nozzle.

NOTICE

Air supply pressure must be set to 70 psi.

NOTICE

If volume of wax coming out of the nozzle slows significantly (so that a light mist is no longer visible), prime the gun again.

<u>It may speed the priming process to block the nozzle with a rag while spraying the gun until the flow of wax increases.</u>

Service Procedure #1: Preparation for Cavity Wax and Undercoating Spray

1. Remove the engine undercover (if equipped).

2. Open the vehicle's tail gate, remove the cover for the bolt to lower the spare wheel/tire assembly, and loosen the bolt to lower the spare.

3. Remove the spare wheel/tire assembly.

4. Use a wire brush to clean the spare tire carrier bracket.

5. Clean the brake banjo bolt surfaces at all 4 calipers using a wire brush. Then wrap the brake assemblies with plastic bags to protect them from overspray. Use tape to secure the plastic in place. Leave the banjo fitting area exposed, as shown.

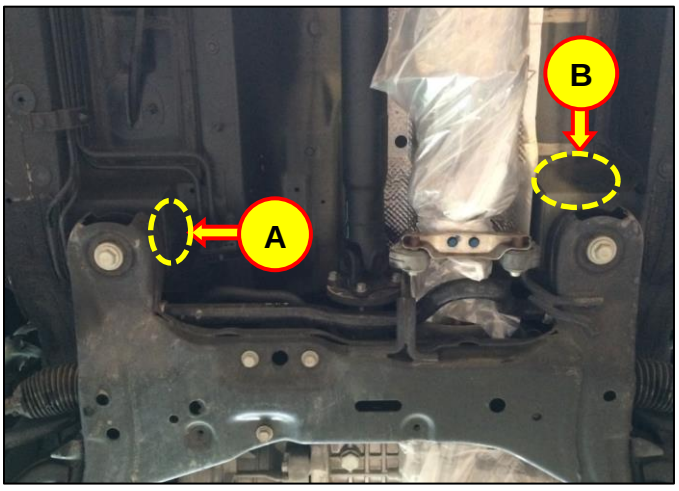
6. Wrap large plastic bags around the wheel/tire/brake assemblies to protect them from overspray. Use tape to secure the plastic in place.

7. Wrap the exhaust areas adjacent to the front and rear cross members with plastic bags to protect them from overspray. Use tape to secure the plastic in place.

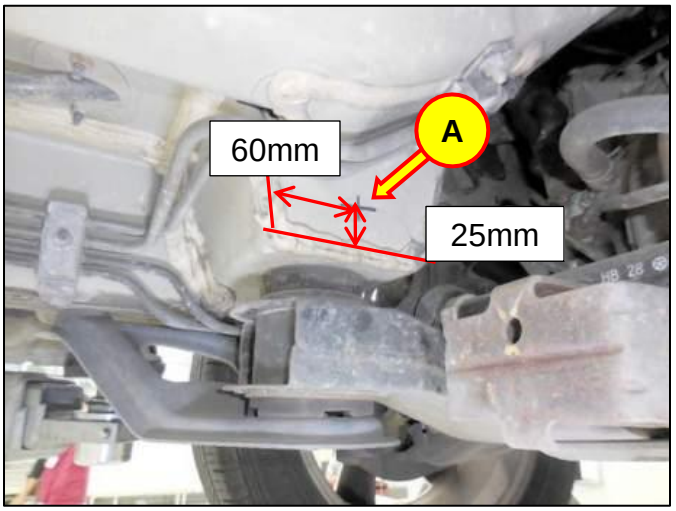
NOTICE

The exhaust must be sufficiently cooled before it is wrapped.

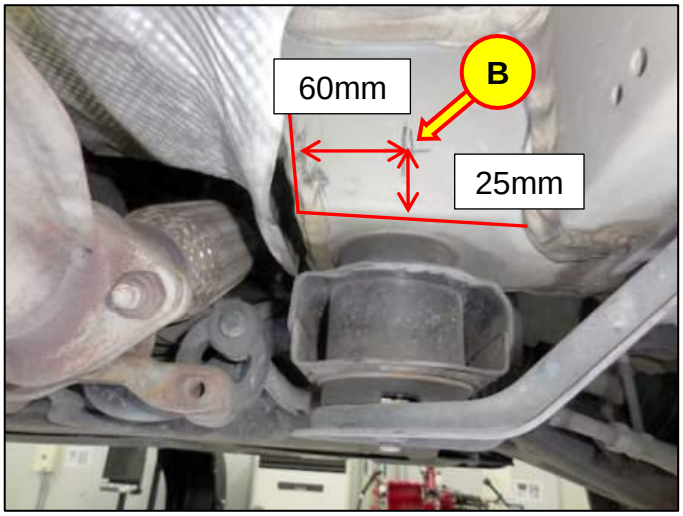
8. Locate the areas A and B near the front cross member mounting bolts.



9. Mark the position to drill a hole for area A, as shown on the image.



10. Mark the position to drill a hole for area B, as shown on the image.

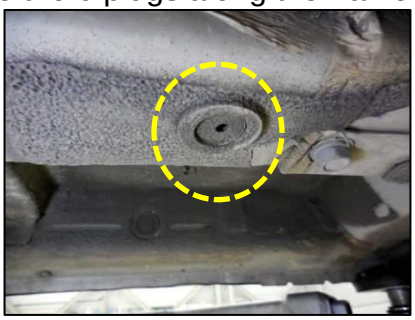


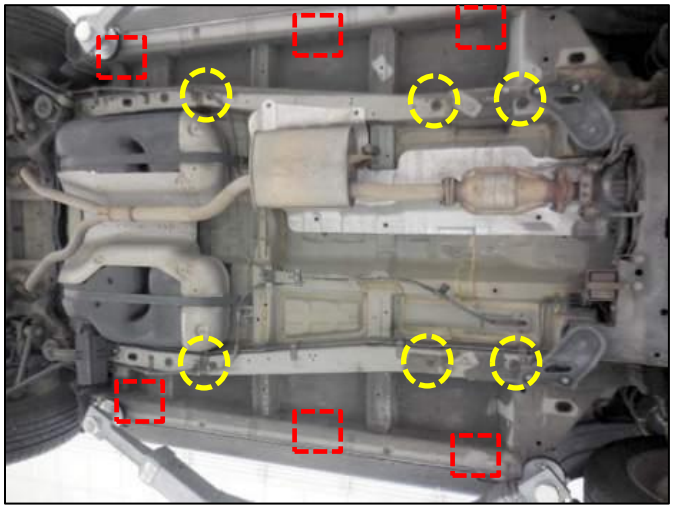
11. Center punch at positions A and B, as previously measured and marked.

12. Drill 12mm holes at positions A and B.

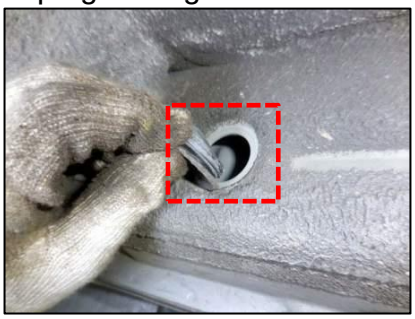
    Deburr holes after drilling.

13. Remove the 6 plugs along the frame rails





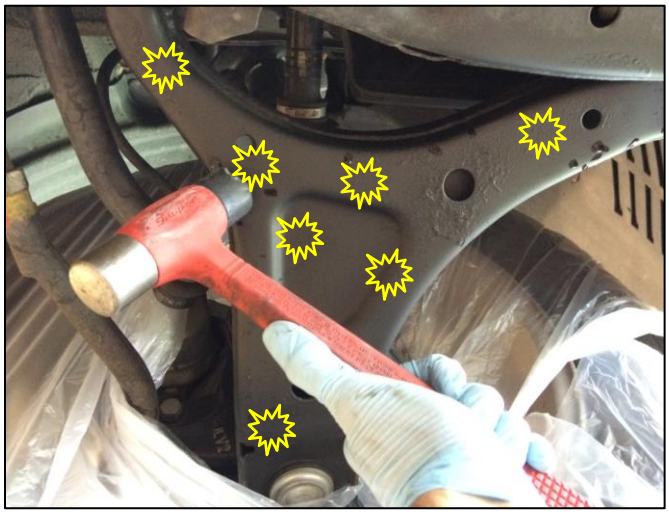
and the 6 plugs along the sills.



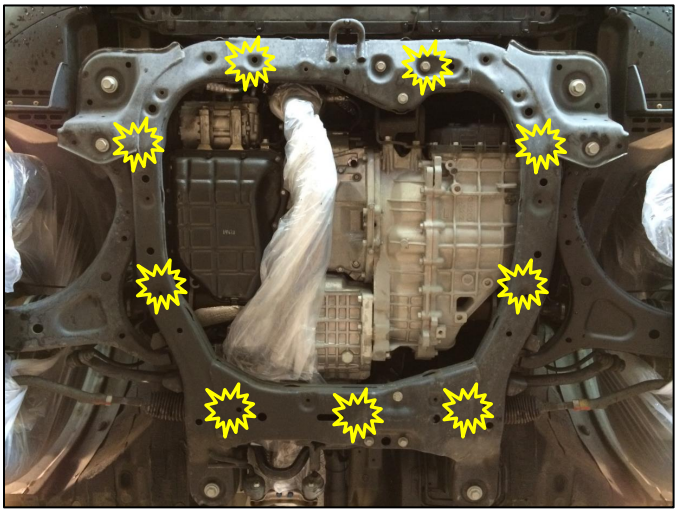
Service Procedure #2: Hammering and Air Blowing to Remove Debris

1. Lift the vehicle on a hoist and remove the undercover.

2. Lightly tap the vehicle underbody with a 16 oz. hammer to loosen debris and the PVC coating in the following locations:



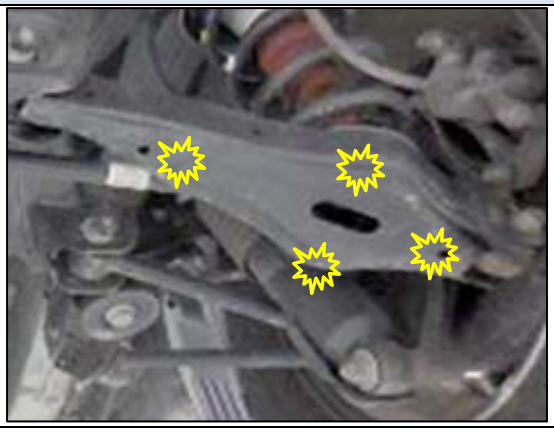
- Front lower control arms



- Front cross member
- Rear lower control arms

NOTICE

If the vehicle has rear lower control arms made of aluminum, no preventative maintenance procedures are required on the rear lower control arms.

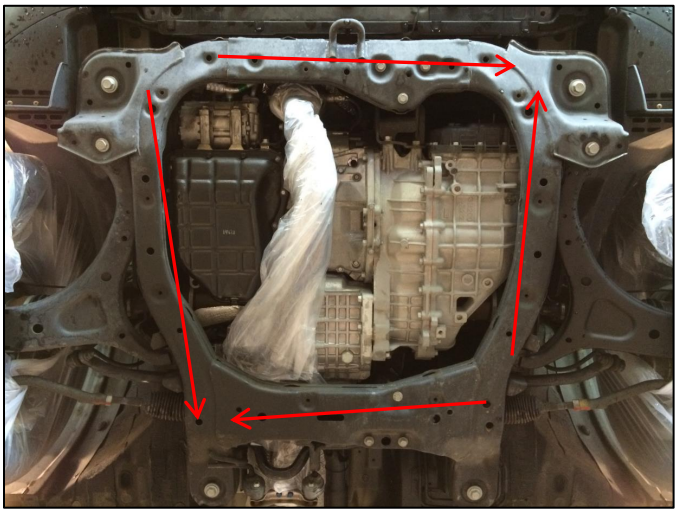
STEEL	ALUMINUM
	

- Rear cross member

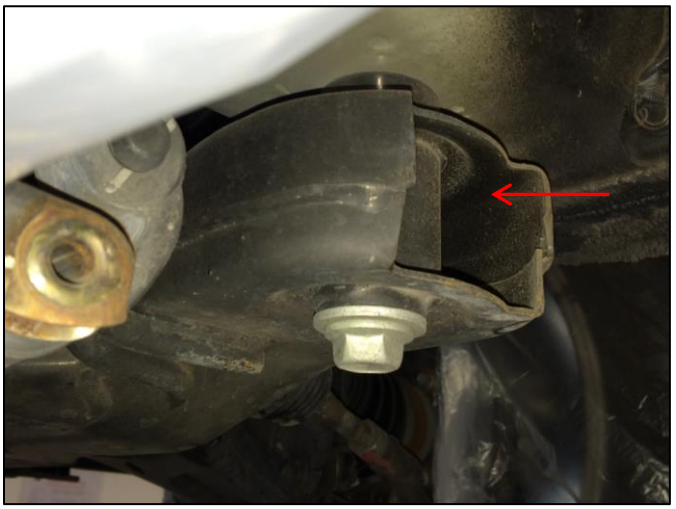
3. Remove the remaining debris by inserting an air nozzle into the locations shown, then blowing air in multiple directions.

- Front lower control arms

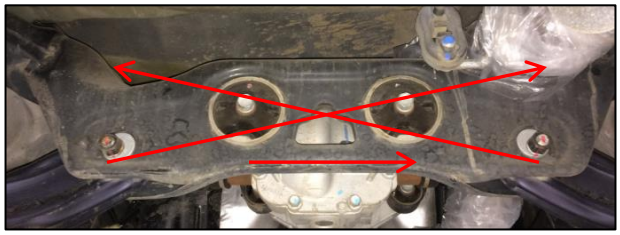
- Front cross member

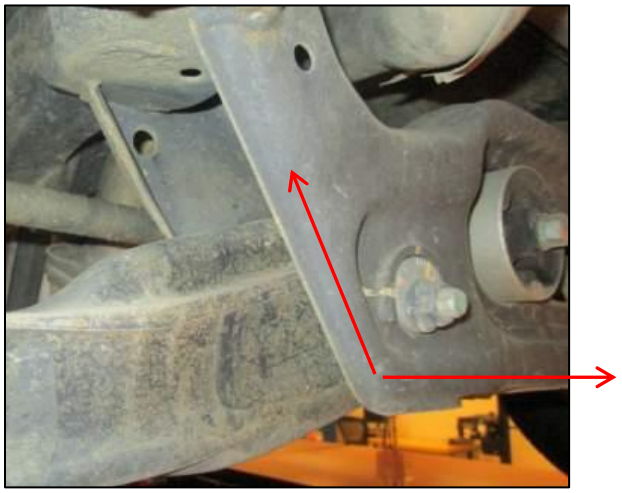


- Front cross member (rear side of cross member, blowing air towards the front of the vehicle)

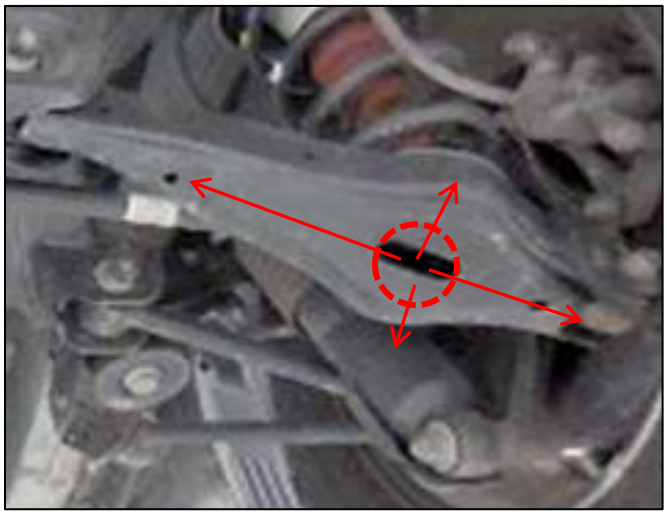


- Rear cross member





- Rear lower control arms



Service Procedure #3: Applying the Cavity Wax

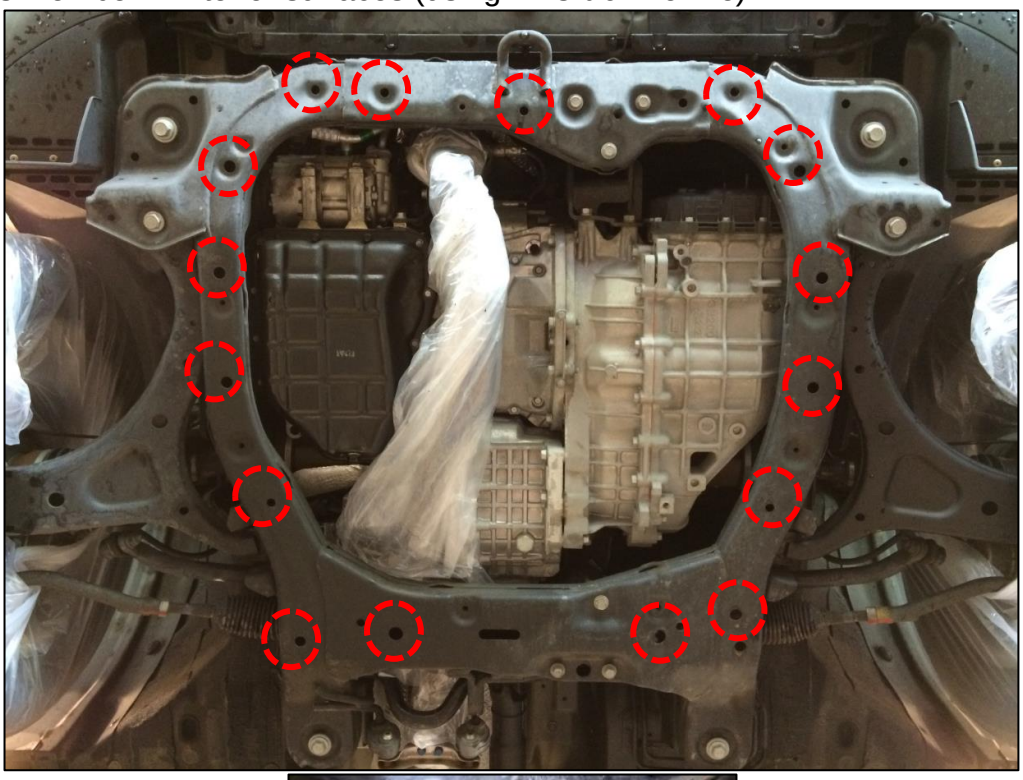
⚠ CAUTION

Wear protective goggles and respiratory protection when performing the procedures in this bulletin. The vehicle should be in a well-ventilated area.

Apply the cavity wax at each of the locations noted in the following steps.

Generally for coating interior surfaces, insert the “inside” nozzle as deeply as possible at each point of entry. Spray the cavity wax while simultaneously rotating the nozzle, and slowly pulling the nozzle out. Continue this rotating/pulling motion until the pink tubing is seen coming out of the hole. The pink tubing indicates there is about 50mm of tubing left until the end of the nozzle. Stop spraying when the pink tubing is seen.

1. Front cross member – Interior surfaces (using ***"inside"*** nozzle)



2. Front lower control arms – Interior surfaces (using ***"inside"*** nozzle)

3a. Front cross member areas A and B, as previously drilled – Interior surfaces (using ***"inside"*** nozzle)

3b. Insert a plug into each hole after spraying the cavity wax.

Plug (17313-12000) 2EA

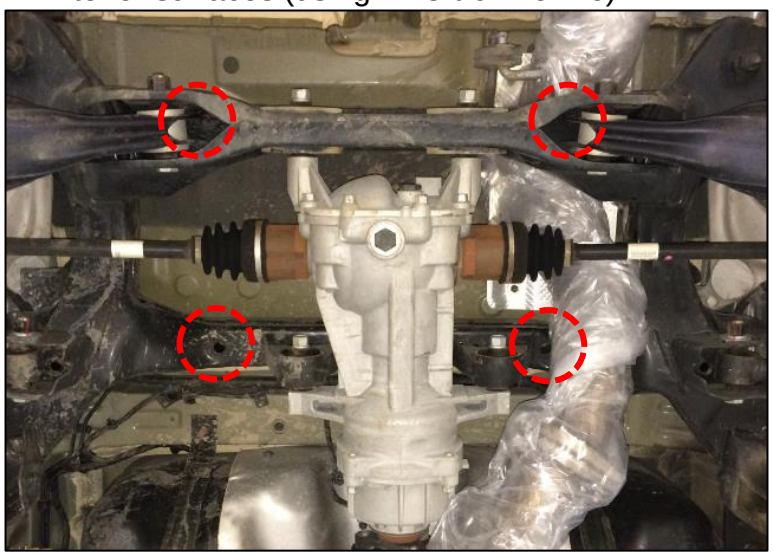

4. 6 side sill holes and 6 frame rail holes (using ***"inside"*** nozzle).

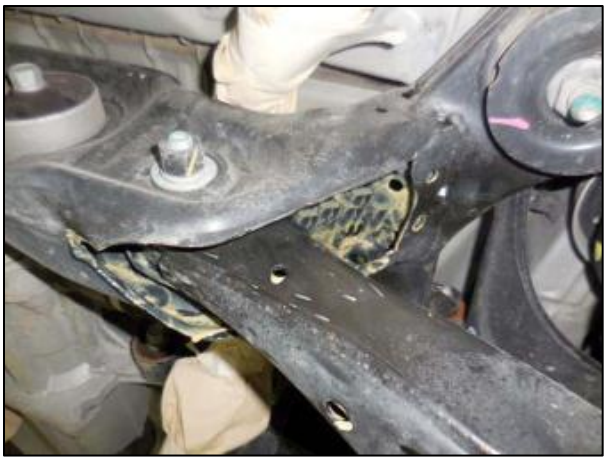
Please see page 11 for hole locations.

NOTICE

Reinstall the plugs that were removed earlier after applying the cavity wax.

5. Rear cross member – Interior surfaces (using ***"inside"*** nozzle)





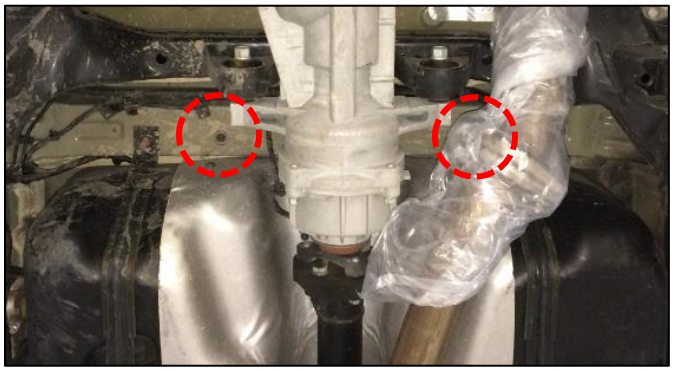
6. Rear lower control arms – Interior surfaces (using ***"inside"*** nozzle)

NOTICE

If the vehicle has rear lower control arms made of aluminum, no preventative maintenance procedures are required on the rear lower control arms.

STEEL	ALUMINUM
	

7. Holes immediately forward of the rear cross member (using ***"inside"*** nozzle)



Service Procedure #4: Applying the Undercoating Spray

⚠ CAUTION

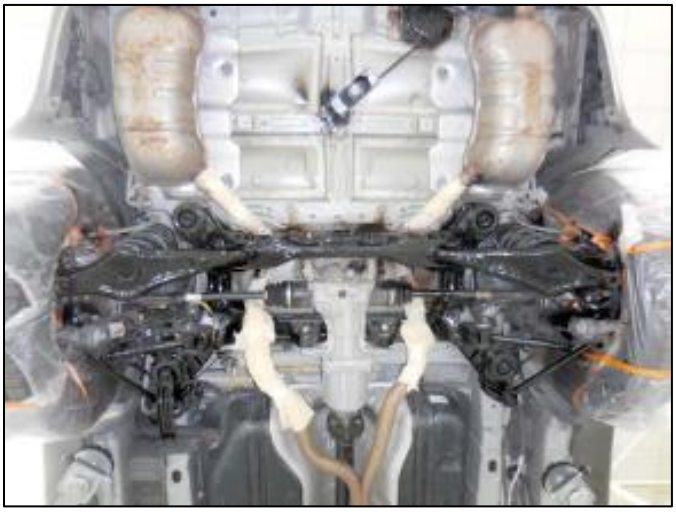
Wear protective goggles and respiratory protection when performing the procedures in this bulletin. The vehicle should be in a well-ventilated area.

Spray the black undercoating on all exterior surfaces of the front and rear cross members, front and rear lower arms, front and rear brake hose mounting points, and the fuel & brake tubes. Refer to the following images.

1. Front cross member

2. Front lower control arms

3. Rear cross member and rear lower control arms

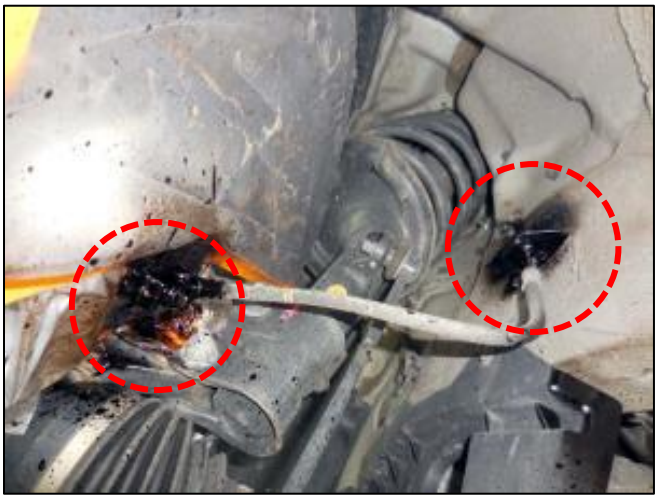


NOTICE

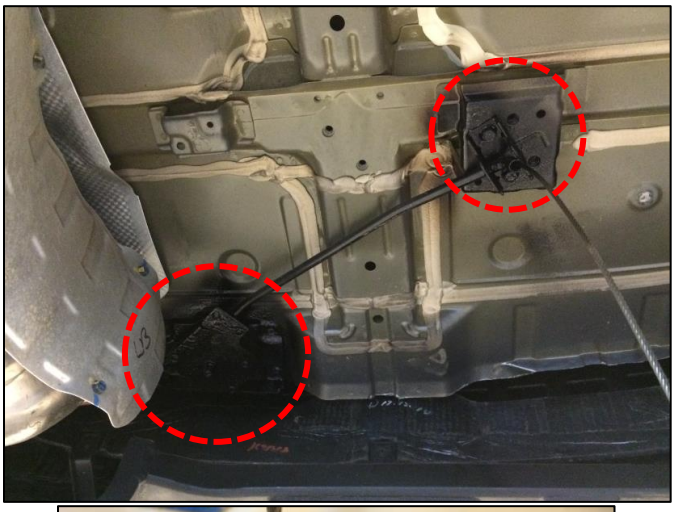
If the vehicle has rear lower control arms made of aluminum, no preventative maintenance procedures are required on the rear lower control arms.

STEEL	ALUMINUM
	

4. Front and rear brake banjo fittings and mounting brackets



5. Spare wheel and tire carrier and bracket



7. Reinstall the spare tire and interior trim.

   Reinstall the engine undercover (if equipped).

   Remove all the plastic bags to complete the procedure.