



HYUNDAI

NEW THINKING.
NEW POSSIBILITIES.

Technical Service Bulletin

GROUP

RECALL

NUMBER

14-01-001

DATE

JANUARY 2014

MODEL(S)

Entourage (EP)

SUBJECT: FRONT LOWER ARM CORROSION TREATMENT (RECALL 115)

* IMPORTANT

*** RETAIL VEHICLES ONLY ***

Dealers must perform this Recall 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: This bulletin describes the procedure to inspect and if necessary replace the front lower arms of certain Entourage (EP) vehicles.



APPLICABLE VEHICLES:

VERIFY THAT THE VEHICLE IS IDENTIFIED AS AFFECTED BY THE RECALL CAMPAIGN VIA WEBDCS.

1. **Model :** Entourage (EP)
2. **Production Date Range:** From February 16, 2006 to June 30, 2008
3. **Area:** 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 or never registered in a “salt belt” state may be eligible for this Campaign. These circumstances include:

1. 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 dealer’s District Parts and Service Manager must be contacted prior to repair and submission of Warranty Claim.

2. Vehicles in “non-salt belt” states that exhibit corrosion damage to the front lower arms. In the event that a vehicle in a “non-salt belt” state exhibits corrosion damage to the front lower arms, the dealer should perform the recall procedure. This applies to both “salt-belt” and “non-salt belt” state dealers. The dealer should perform this procedure at no cost to the customer, and the dealer’s District Parts and Service Manager 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 inspection of their vehicle to check for corrosion damage, the inspection should be performed at no charge to the customer.

PARTS INFORMATION:

★ NOTE

The Thickness Gauge shown below will be sent to dealers separately from the Front Lower Arm Kit. Additional gauges can be ordered through the PDC using the listed part number.

PART IMAGE	PART NUMBER	DESCRIPTION
	54500-4D102QQH	Front Lower Arm Kit (Left and right lower arms, hardware, and bushings)
	54500-18GAP	Front Lower Arm Thickness Gauge

SUBJECT: FRONT LOWER ARM CORROSION TREATMENT (RECALL 115)

	<p>00232-19034</p>	<p>Cavity Wax</p> <ul style="list-style-type: none"> For op code 31C060R0, ¼ bottle is required per vehicle.
	<p>00232-19035</p>	<p>Black Undercoating (non-rubberized type)</p> <ul style="list-style-type: none"> For op code 31C060R0, ½ can is required per vehicle.

TOOLS AND EQUIPMENT (DEALER'S RESPONSIBILITY):

<p>WAX SPRAY GUN P/N: 00232-19036</p>	<p>HAMMER – 16oz</p>	<p>AIR NOZZLE</p>	<p>WIRE BRUSH</p>	<p>GOGGLES & RESPIRATORY PROTECTION</p>	<p>MAGNETIC STICK</p>
					

*** NOTE**

- Use the wax spray gun and nozzle provided in TSB 13-01-039 (Recall 113).
- Set the air compressor pressure regulator to 70 psi before using the wax spray gun.

CAUTION

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

WARRANTY INFORMATION:

OP CODE	OPERATION	OP TIME
31C060R1	<ul style="list-style-type: none">• Front lower arm inspection and replacement	0.8 M/H
31C060R0	<ul style="list-style-type: none">• Front lower arm inspection and wax and under coating application	0.4 M/H

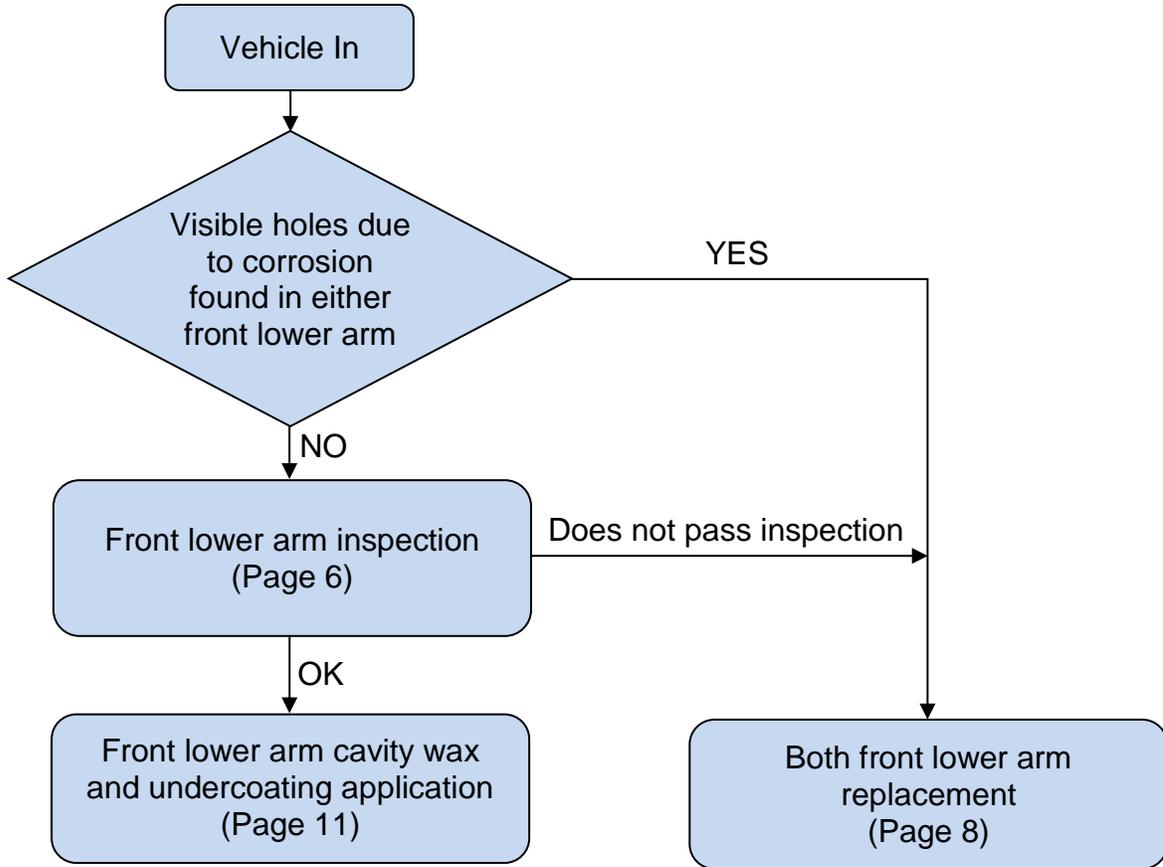
NOTE 1: Submit Claim on Campaign Claim Entry Screen.

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

Parts Scrap Information:

Front lower arms replaced due to corrosion damage (Op Code 31C060R1): It is required to retain the removed front lower arms for 20 days from the date of claim payment approval before scrapping the part(s).

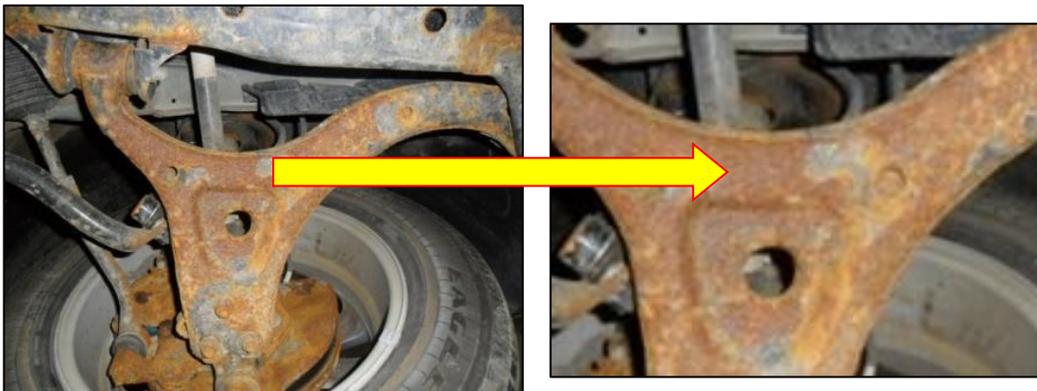
SERVICE PROCEDURE:



Overview:

Lift the vehicle. Inspect for holes due to corrosion in the front lower arm.

1. If any holes are found on either arm, replace **both** front lower arms with replacement parts following the 'FRONT LOWER ARM REPLACEMENT' procedure on page 8.



2. If no holes are found, inspect the front lower following the 'FRONT LOWER ARM INSPECTION' procedure on page 6.
 - a. If corrosion damage is found after removing debris from the lower arm, perform the 'FRONT LOWER ARM REPLACEMENT' procedure on page 8.
 - b. If the arm passes the gauge inspection, perform the 'FRONT LOWER ARM CAVITY WAX AND UNDERCOATING APPLICATION' procedure on page 11.
 - c. If the arm does not pass the gauge inspection, perform the 'FRONT LOWER ARM REPLACEMENT' procedure on page 8.

FRONT LOWER ARM INSPECTION:

1. Lift the vehicle on a hoist, check if there are any holes due to corrosion on both front lower arms (A).

*** NOTE**

If any holes due to corrosion are found on either front lower arm, skip the rest of the inspection procedure and proceed to 'FRONT LOWER ARM REPLACEMENT' on page 8.

! CAUTION

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



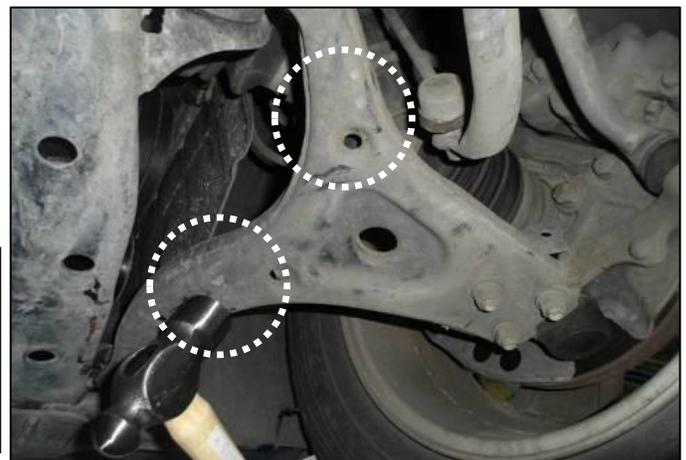
Example of corrosion

2. Using a 16 oz. hammer, lightly tap the circled areas shown on the photo to the right to remove loose debris to expose the arm.

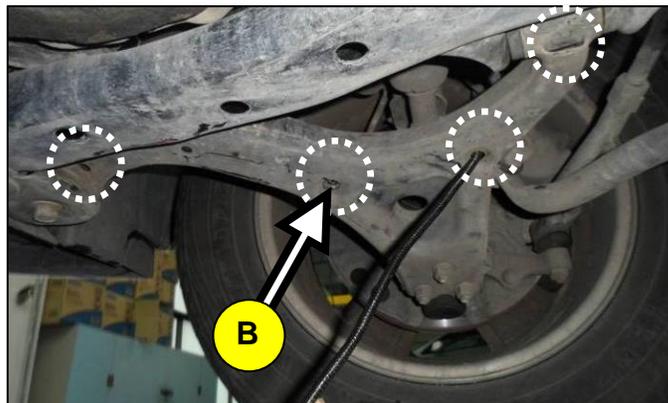
Inspect the arm for any corrosion damage.

*** NOTE**

If any of the circled areas on either arm show signs of corrosion damage, skip the rest of the inspection procedure and proceed to 'FRONT LOWER ARM REPLACEMENT' on page 8.



3. Insert the magnetic stick into the circled holes (B) of the lower arm to remove interior debris.



4. Remove the remaining debris in the lower arm by inserting an air gun into the circled holes (B) of the lower arm. Blow the air in multiple directions to remove as much debris as possible.

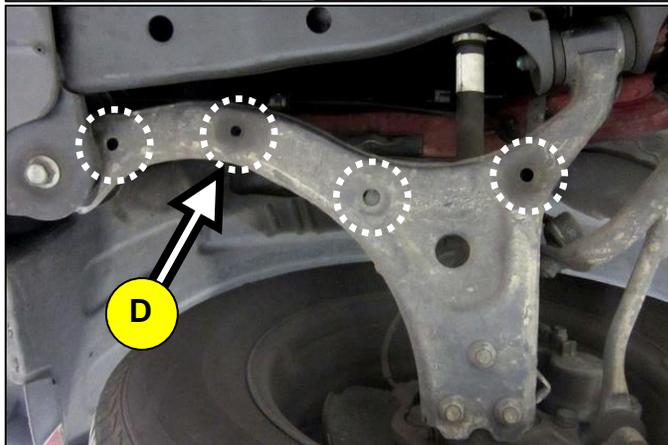
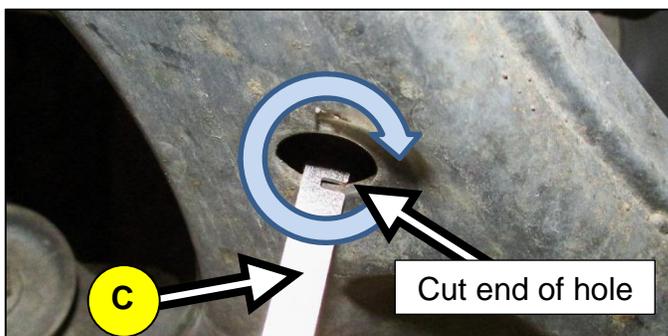
Repeat this step two to three times to remove the remaining debris from inside the lower arm.



5. Use the lower arm thickness gauge (C), to measure the thickness around each of the cut ends of the four circled holes (D) of lower arm. Repeat this step on the other front lower arm.

If the gauge can be inserted over any of the cut ends of the holes of either arm, replace **both** front lower arms following the 'FRONT LOWER ARM REPLACEMENT' procedure on page 8.

If the gauge cannot be inserted over any of the cut ends of the holes on either arm, perform the 'FRONT LOWER ARM WAX / UNDERCOATING APPLICATION' procedure on page 11.



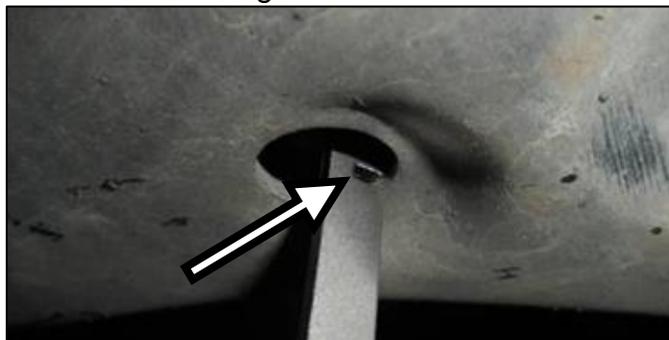
Gauge inserted



LOWER ARM **NO GOOD**

Proceed to the 'FRONT LOWER ARM REPLACEMENT' on page 8.

Gauge NOT inserted



LOWER ARM **GOOD**

Proceed to the 'FRONT LOWER ARM WAX / UNDERCOATING APPLICATION' procedure on page 11.

FRONT LOWER ARM REPLACEMENT:

1. Remove both front wheel and tire assemblies.

Lug Nut Tightening Torque:

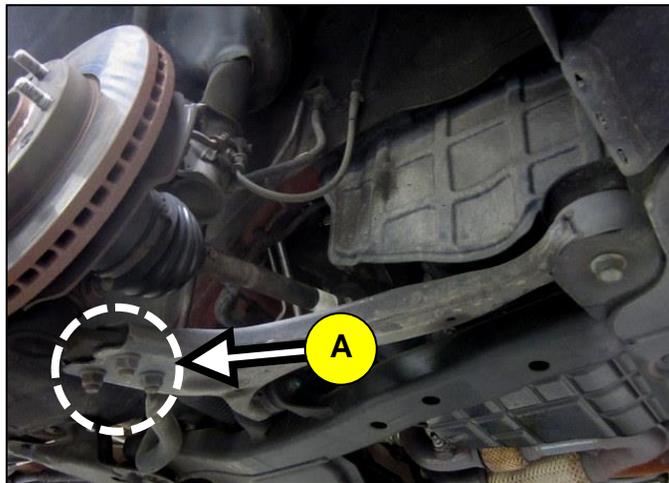
65.1 ~79.5 lb-ft (88.3 ~ 107.9Nm, 9.0 ~ 11.0kgf.m)



2. Remove the three ball joint nuts, studs, and bolt (A) and separate the ball joint from the lower arm. Discard the nuts, studs, and bolt. During reinstallation use the hardware supplied in the kit.

Ball Joint Nut Tightening Torque:

72.3 ~ 86.8 lb-ft (98.1 ~ 117.7 Nm, 10.0 ~ 12 kgf.m)



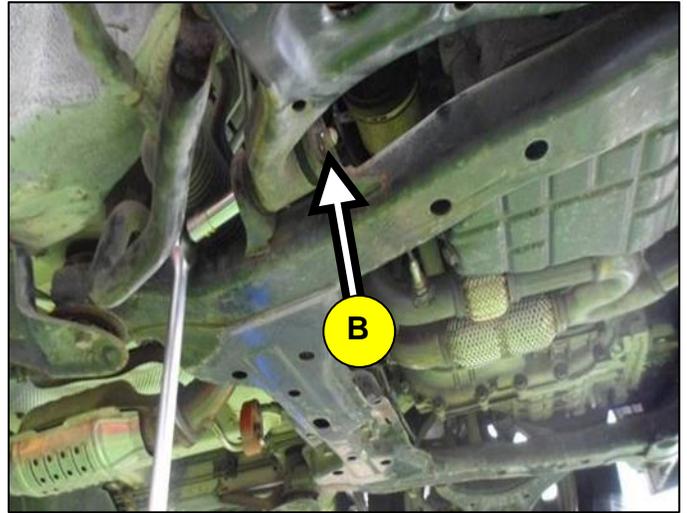
*** NOTE**

Support the brake assembly with a jack after separating the ball joint from the lower arm.

3. Remove the lower arm rear nut and bolt (B).

Tightening Torque:

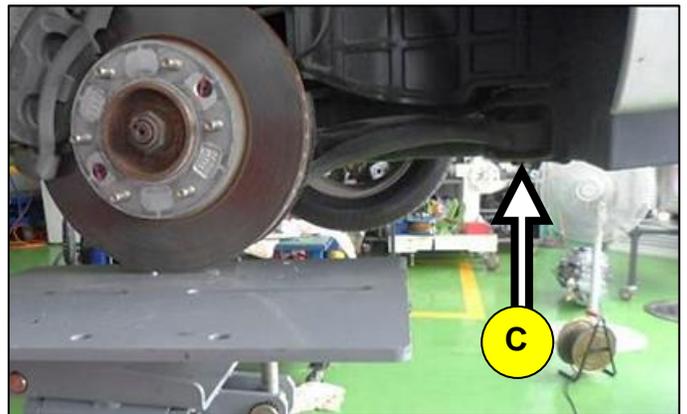
115.7 ~ 130.2 lb-ft (156.9 ~ 176.5 N.m, 16.0 ~ 18.0 kgf.m)



4. Remove the lower arm front nut and bolt (C).

Bolt Tightening Torque:

115.7 ~ 130.2 lb-ft (156.9 ~ 176.5 N.m, 16.0 ~ 18.0 kgf.m)



5. Remove the lower arm. It may require the use of a pry-bar.



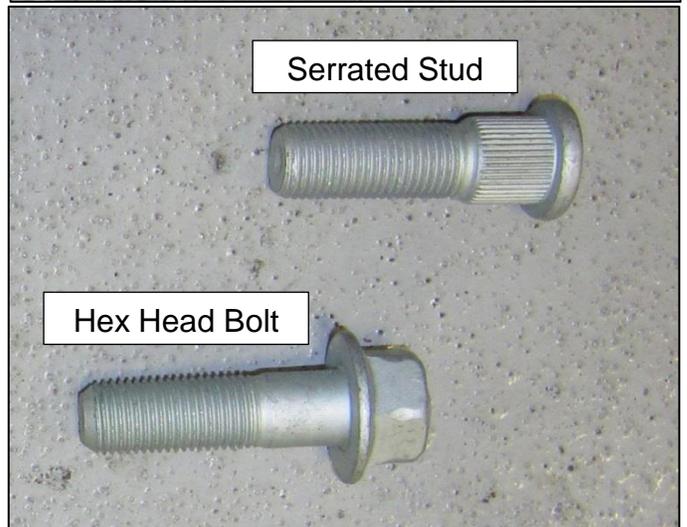
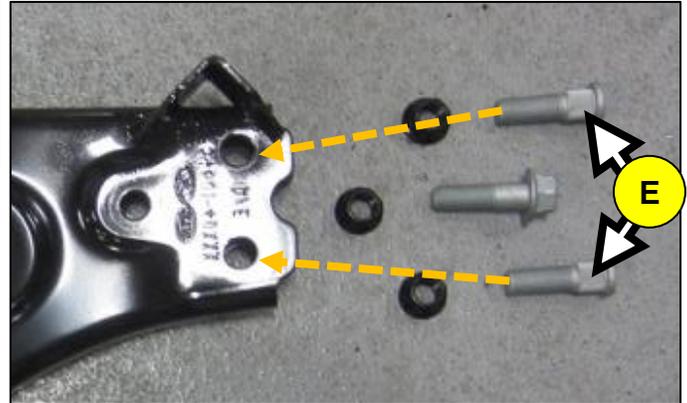
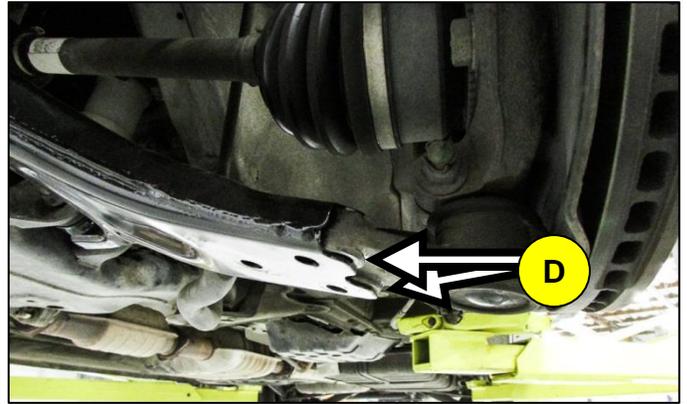
6. Installation of the new lower arm is reverse of removal.

*** NOTE**

Tap the areas shown by the arrows (D) to help insert the lower ball joint into the lower arm.

*** NOTE**

After the lower ball joint is inserted to the lower arm, ensure that the two serrated studs (E) are installed in the locations shown in the photo to the right.



FRONT LOWER ARM CAVITY WAX AND UNDERCOATING APPLICATION:

1. Remove front wheel and tire assemblies from both sides.

Lug Nut Tightening Torque:

65.1 ~79.5 lb-ft (88.3 ~ 107.9Nm, 9.0 ~ 11.0kgf.m)

CAUTION

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



2. Use a wire brush or clean rag to remove debris from both front lower arms.



3. Wrap plastic bags around both front brake assemblies to protect it from overspray.



4. Select the nozzle shown to the right to spray the interior of the lower arm.

When spraying the wax, a light mist should be visible. If no mist is seen, point the nozzle in a safe direction, and press the gun's trigger until a mist is visible.

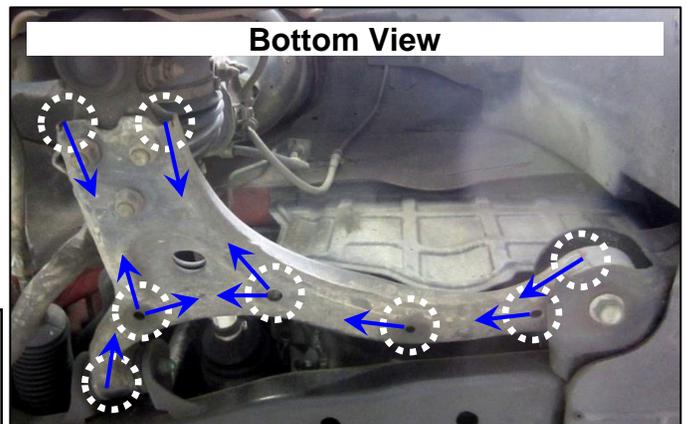


*** NOTE**

Supply air pressure must be set to 70 PSI.

5. Spray cavity wax in the interior of the front lower arms through the top and bottom holes.

Locations (circled) and wax spraying directions (arrows) are shown in the photos to the right.

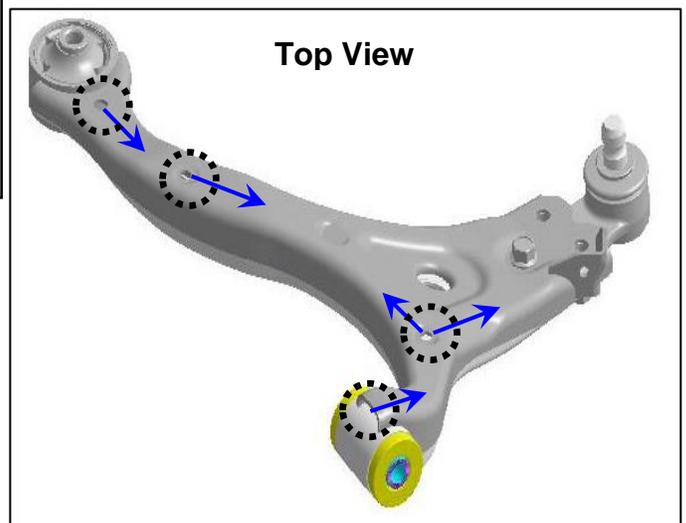


Bottom View

*** NOTE**

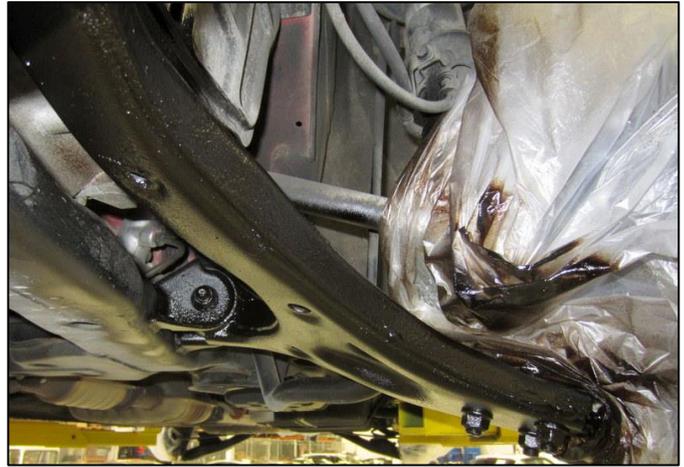
Spray the wax in each location for 15 seconds. A light mist of wax should be visible indicating good wax flow.

Some locations show multiple directions. For these locations, rotate the nozzle while spraying to ensure good coverage.



Top View

6. Spray the black undercoating on all exterior surfaces of the lower arms.



7. Reinstall front wheel and tire assemblies on both sides.