



Stacy L. Balzer
Operating Director
Service Engineering Operations
Ford Customer Service Division

Ford Motor Company
P. O. Box 1904
Dearborn, Michigan 48121

September 20, 2023

TO: All U.S. Ford and Lincoln Dealers

SUBJECT: Customer Satisfaction Program 23B17
Certain 2022 Model Year Mustang GT 500 and 2023 F-150 Raptor R Vehicles
Engine Front Cover and Valve Cover Replacement

PROGRAM TERMS

This program will be in effect through September 30, 2024, there is no mileage limit for this program.

AFFECTED VEHICLES

| Vehicle | Model Year | Assembly Plant | Build Dates |
|----------------|------------|--------------------|---|
| Mustang GT 500 | 2022 | Flat Rock Assembly | September 27, 2022, through November 4, 2022 |
| F-150 Raptor R | 2023 | Dearborn | September 21, 2022, through February 13, 2023 |

US population of affected vehicles: 2,152. Affected vehicles are identified in OASIS and FSA VIN Lists.

Note: Some vehicles may be in the process of being repaired at the plant. Monitor OASIS before opening an RO and/or beginning a repair. Parts purchased for an FSA can be returned for credit if required. See the EXCESS STOCK RETURN details in Labor Allowances and Parts Ordering Information for more information.

Note: The following Special Service Message (SSM) includes some component replacements as contained in this FSA:

- SSM 51811

Therefore, reuse the valve covers and replace valve cover gaskets if SSM 51811 has been performed. The valve covers have been replaced per SSM 51811 and do not need to be replaced again.

REASON FOR THIS PROGRAM

Some of the affected vehicles may exhibit an engine front cover oil leak caused by excessive movement of the front crankshaft front main seal and a valve cover leak caused by a loose spark plug seal.

SERVICE ACTION

Dealers are to replace the engine front cover and valve covers. This repair must be performed on all affected vehicles at no charge to the vehicle owner.

OWNER NOTIFICATION MAILING SCHEDULE

Owner letters are expected to be mailed the week of October 2, 2023. Dealers should repair any affected vehicles that arrive at their dealerships, whether or not the customer has received a letter.

ATTACHMENTS

- Administrative Information
- Labor Allowances and Parts Ordering Information
- Technical Instructions
- Mobile Service Repair Assessment
- Mobile Repair/Vehicle Pickup and Delivery Record
- Owner Notification Letter

QUESTIONS & ASSISTANCE

For questions and assistance, contact the Special Service Support Center (SSSC) via the SSSC Web Contact Site. The SSSC Web Contact Site can be accessed through the Professional Technician System (PTS) website using the SSSC link listed at the bottom of the OASIS VIN report screen or listed under the SSSC tab.

Sincerely,

A handwritten signature in black ink that reads "Stacy L. Balzer". The signature is written in a cursive, flowing style.

Stacy L. Balzer

Customer Satisfaction Program 23B17

MOBILE SERVICE REPAIR ASSESSMENT LEVEL

- All repairs in this program have the following assessment level:
Ⓢ - Not a Mobile Service Repair

OASIS ACTIVATION

OASIS will be activated on September 20, 2023

FSA VIN LISTS ACTIVATION

FSA VIN Lists will be available through <https://web.fsavinlists.dealerconnection.com> on September 20, 2023, Owner names and addresses will be available by October 20, 2023.

NOTE: Your FSA VIN Lists may contain owner names and addresses obtained from motor vehicle registration records. The use of such motor vehicle registration data for any purpose other than in connection with this program is a violation of law in several states, provinces, and countries. Accordingly, you must limit the use of this listing to the follow-up necessary to complete this service action.

SOLD VEHICLES

- Owners of affected vehicles will be directed to dealers for repairs.
- Immediately contact any of your affected customers whose vehicles are not on your VIN list but are identified in OASIS. Give the customer a copy of the Owner Notification Letter (when available) and schedule a service date.
- Correct other affected vehicles identified in OASIS that are brought to your dealership.
- Dealers are to prioritize repairs of customer vehicles over repairs of new and used vehicle inventory.

STOCK VEHICLES

- Correct all affected units in your new vehicle inventory before delivery.
- Use OASIS to identify any affected vehicles in your used vehicle inventory.

BRANDED / SALVAGED TITLE VEHICLES

Affected branded/salvaged title vehicles are eligible for this service action.

OWNER REFUNDS

Refunds are not approved for this program.

RENTAL VEHICLES

Dealers are pre-approved for up to 3 days for a rental vehicle. Follow Extended Service Plan (ESP) guidelines for dollar amounts. Rentals will only be reimbursed for the day(s) the vehicle is at the dealership for part replacement. Prior approval for more than 3 rental day(s) is required from the SSSC via the SSSC Web Contact Site.

Customer Satisfaction Program 23B17

PICK-UP AND DELIVERY- Participating Dealers

Dealers participating in the Remote Experience Program:

- Refer to EFC12071, 2023 Remote Experience Program, Pickup & Delivery (PDL) Offset section for additional details.

PICK-UP AND DELIVERY- Non-participating Dealers

Dealers not participating in the 2023 Remote Experience Program for Pick-up & Delivery are authorized to claim unique services for completing this program.

- Dealers are authorized to claim one-half labor hour per repair for vehicle pick-up & delivery services. Refer to Labor Allowances for details.
- Dealers must retain a Vehicle Pick-up & Delivery Record with the repair order documentation.

ADDITIONAL REPAIR (LABOR TIME AND/OR PARTS)

Additional repairs identified as necessary to complete the FSA should be managed as follows:

- For related damage and access time requirements, refer to the Warranty and Policy Manual / Section 6 – Ford & Lincoln Program Policies / General Information & Special Circumstances for FSAs / Related Damage.
- For vehicles within new vehicle bumper-to-bumper warranty coverage, no SSSC approval is required, although related damage must be on a separate repair line with the “Related Damage” radio button checked.
 - Ford vehicles – 3 years or 36,000 miles
- For vehicles outside new vehicle bumper-to-bumper warranty coverage, submit an Approval Request to the SSSC Web Contact Site before completing the repair.

Customer Satisfaction Program 23B17

CLAIMS PREPARATION AND SUBMISSION

- **Claim Entry:** Enter claims using Dealer Management System (DMS) or One Warranty Solution (OWS) online.
 - When entering claims:
 - Claim type 31: Field Service Action
 - Sub Code: 23B17
 - Customer Concern Code (CCC): D8 Failed Gasket/Seal
 - Condition Code (CC): L65 Engine Leaks Oil
 - Causal Part Number: 6019, Quantity 0
 - For additional claims preparation and submission information, refer to the Recall and Customer Satisfaction Program (CSP) Repairs in the OWS User Guide.
- **Related Damage/Additional labor and/or parts:** Must be claimed as Related Damage on a separate repair line from the FSA with the same claim type and subcode as described in the Claim Entry above.

IMPORTANT: Click the Related Damage Indicator radio button.
- **Rentals:** For rental vehicle claiming, follow Extended Service Plan (ESP) guidelines for dollar amounts. Enter the total amount of the rental expense under the Miscellaneous Expense code RENTAL.
- **Pickup & Delivery:**
 - Dealers participating in the Remote Experience Program –
 - Refer to EFC12071, 2023 Remote Experience Program, Pickup & Delivery (PDL) Offset section for additional details.
 - Dealers NOT participating in the Remote Experience Program –
 - Dealers are authorized to claim one-half labor hour per repair for vehicle pick-up and delivery services.
 - Dealers must retain a Vehicle Pick-up and Delivery Record with the repair order documentation.
- **Additional parts not listed in the parts section:** Additional parts such as engine oil and coolant may be submitted on the same repair line on which the FSA is claimed.
 - Program Code: 23B17
 - Misc. Expense: OTHER
 - Misc. Expense: Claim up to \$100

Labor Allowances and Parts Ordering Information

Customer Satisfaction Program 23B17

LABOR ALLOWANCES

| Description | Labor Operation | Labor Time |
|---|------------------------|-------------------|
| Replace the engine front cover and valve covers – F-150 Raptor R | 23B17B | 7.6 Hours |
| Replace the engine front cover and valve covers – Mustang GT 500 without Track Pack | 23B17C | 8.1 Hours |
| Replace the engine front cover and valve covers – Mustang GT 500 with Track Pack | 23B17D | 8.5 Hours |
| Vehicle Pick-up and Delivery Allowance: This allowance is only for non-eligible 2023 Remote Experience Program Dealers. NOTE: This allowance is for dealer-performed vehicle pick-up/delivery for dealership repairs only. Can only be claimed once, regardless of outstanding FSAs repaired. | 23B17PP | 0.5 Hours |

PARTS REQUIREMENTS / ORDERING INFORMATION

| Part Number | Description | Order Quantity | Claim Quantity |
|--------------------|---|-----------------------|-----------------------|
| Part Number | Description | Order Quantity | Claim Quantity |
| AL3Z-6A340-A | Harmonic Balancer Bolt | 1 | 1 |
| KR3Z-6700-B | Crankshaft Front Main Seal | 1 | 1 |
| BR3Z-6020-B | Front Cover Gasket LH | 1 | 1 |
| BR3Z-6020-D | Front Cover Gasket RH | 1 | 1 |
| BR3Z-6020-C | Front Cover Gasket Center | 1 | 1 |
| AC3Z-8527-A | Heater Outlet O-Ring | 1 | 1 |
| KR3Z-6582-G | Valve Cover – RH Note: Do not replace if SSM 51811 already performed | 1 | 1 |
| KR3Z-6582-E | Valve Cover – LH Note: Do not replace if SSM 51811 already performed | 1 | 1 |
| F1VY-8507-A | Water Pump O-Ring | 1 | 1 |
| KR3Z-6019-A | Front Cover - GT 500 only | 1 | 1 |
| NR7Z-6019-A | Front Cover – Raptor R only | 1 | 1 |

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| Part Number | Description Note: Replace the following components only if oil-saturated | Order Quantity | Claim Quantity |
|--------------------|---|-----------------------|-----------------------|
| NR7Z-8620-B | Accessory Drive Belt – Raptor only | 1 | 1 |
| NR7Z-8620-A | Supercharger Drive Belt - Raptor | 1 | 1 |
| KR3Z-8620-B | Accessory Drive Belt - GT 500 | 1 | 1 |
| KR3Z-8620-A | Supercharger Drive Belt - GT 500 | 1 | 1 |

| Part Number | Description Note: Replace the following components only if the valve covers have been replaced previously per SSM 51811 | Order Quantity | Claim Quantity |
|--------------------|--|-----------------------|-----------------------|
| KR3Z-6584-B | Valve Cover Gasket - RH | 1 | 1 |
| KR3Z-6584-A | Valve Cover Gasket - LH | 1 | 1 |

DEALER PRICE

For the latest prices, refer to DOES II.

PARTS RETENTION, RETURN, & SCRAPPING

Follow the provisions of the Warranty and Policy Manual, Section 1 - WARRANTY PARTS RETENTION AND RETURN POLICIES. If a replaced part receives a scrap disposition, the part must be scrapped by all applicable local, state, and federal environmental protection and hazardous material regulations. Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall.

EXCESS STOCK RETURN

The excess stock returned for credit must have been purchased from the Ford Customer Service Division by Policy Procedure Bulletin 4000.

Customer Satisfaction Program 23B17

REPLACED FSA PARTS INSPECTION AND SIGNED OFF

Effective March 1st, 2021, all parts replaced as part of an FSA repair with a repair order open date of March 1st, 2021, or later must be inspected and signed off on the repair order by a member of your dealer's fixed operations management team or an employee the task has been delegated to. If the task is to be delegated to a non-management employee, the employee needs to be someone other than the technician who completed the repair and needs to understand the importance of completing this task consistently and accurately.

- All parts replaced as part of an FSA repair should be returned to the parts department following the Warranty Parts Retention and Return Policies.
- Inspect the replaced parts to verify the FSA repair was completed.
- If the FSA repair is found to be complete, the designated employee signs the repair order line or parts return stamp area (electronic or hand-signed) for the FSA repair indicating the parts were inspected and validated to have been replaced.
- After the parts have been inspected, they should be handled based on the guidance in the parts status report in the Online Warranty System (Hold, Return, CORE, Scrap, etc.). Please visit FMCDEALER > PARTS & SERVICE > WARRANTY ADMINISTRATION & WARRANTY PARTS RETURN for the latest [Immediate Scrap List](#) information.
- This process is subject to review during warranty audits for FSA repairs with a repair order open date of March 1st, 2021, or later. Any eligible FSA claims requiring parts replacement found not to have been inspected and signed off during a warranty audit will be subject to chargeback and consideration for enrollment into the Dealer Incomplete Recall Repair Process.

Note: Other approvals (electronic or handwritten) for add-on repair lines, dealer-owned vehicle repairs, and repeat repairs do not qualify as FSA parts inspection approvals. The post-repair FSA parts inspection process (electronic or handwritten) is independent of other warranty approval requirements. The approval by the designated employee implies that the FSA parts were found to be replaced and must be able to be identified on the Repair Order. If multiple FSAs require approval on a single Repair Order, each applicable occurrence will require individual post-repair approval by the designated employee.



Ford Motor Company
Ford Customer Service Division
P. O. Box 1904
Dearborn, Michigan 48121

October 2023

Customer Satisfaction Program(s): 23B17, 23B18, 23B19, 23B20, 23B25
Mr. John Sample
123 Main Street
Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At Ford Motor Company, we are committed not only to building high-quality, dependable products but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing one or more a no-charge Customer Satisfaction Program(s) for your vehicle with the VIN shown above.

Why are you receiving this notice? Your vehicle may have one or more customer satisfaction program(s) open.

What is the effect? Depending on which program(s) apply, the effect on your vehicle may include oil/coolant leaks, unwanted noise from the front end and/or unwanted noise from underneath the vehicle.
To find the specific program(s) information for your vehicle, you can check service section of your FordPass app, visit the website below, or use the QR code: <https://www.ford.com/support/recalls>



What will Ford and your dealer do? In the interest of customer satisfaction, Ford Motor Company has authorized your dealer to make repairs to your vehicle following the instructions accompanying each applicable customer satisfaction program(s). Any required repairs will be made free of charge (parts and labor) under the terms of this program(s).

Any applicable program(s) related to this notification will be in effect until September 30, 2024 regardless of mileage. Coverage is automatically transferred to subsequent owners.

How long will it take? The time required to repair your vehicle will vary depending on the program(s) open on your vehicle.

What should you do? Please call your dealer without delay to determine the applicable customer satisfaction program(s) on your vehicle and to schedule a service appointment for the repairs. Provide the dealer with your VIN, which is printed near your name at the beginning of this letter, to inquire about the open program(s).
If you do not already have a servicing dealer, you can access [ford.com/support](https://www.ford.com/support) for dealer addresses, maps, and driving instructions.
Ford Motor Company wants you to have these service actions completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. Ford Motor Company can deny coverage for any vehicle damage that may result from the failure to have the actions performed on a timely basis. Therefore, please have the service actions performed as soon as possible.
NOTE: You can receive information about Recalls and Customer Satisfaction Program(s) through our FordPass App. The app can be downloaded through the App Store or Google Play. In addition, there are other features such as reserving parking in certain locations and controlling certain functions on your vehicle (lock or unlock doors, remote start) if it is equipped to allow control.

Do you need a rental vehicle?

If your dealer determines that the repairs will require your vehicle be kept overnight, your dealer may provide a rental vehicle for your personal transportation at no charge (except for fuel, insurance, and tax) while your vehicle is at the dealership for repairs. Please see your dealer for guidelines and limitations.

What if you no longer own this vehicle?

If you no longer own this vehicle and have an address for the current owner, please forward this letter to the new owner.

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

Can we assist you further?

If you have difficulties getting your vehicle repaired promptly and without charge, please contact your dealership's Service Manager for assistance.

RETAIL OWNERS: If you have questions or concerns, please contact our **Ford Customer Relationship Center at 1-866-436-7332** and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is ford.com/support.

For the hearing impaired call 1-800-232-5952 (TDD). Representatives are available Monday through Friday: 8:00 AM – 8:00 PM (Eastern Time).

FLEET OWNERS: If you have questions or concerns, please contact our **Ford Pro Contact Center at 1-800-34-FLEET**, choose Option #1, and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is fleet.ford.com.

Representatives are available Monday through Friday: 7:00 AM – 11:00 PM and Saturday 7:00 AM – 5:00 PM (Eastern Time).

Thank you for your attention to this important matter.

Ford Customer Service Division

23B17

**MOBILE REPAIR / VEHICLE PICK-UP AND DELIVERY
RECORD**

VIN _____ received (check one):

- Mobile Repair
- Pick-up and/or delivery service

As outlined below for the 23B17 Field Service Action program.

Mobile Repair – Date: _____

OR

Pick-up – Date: _____

Delivery – Date: _____

Repair Order #

Repair Order Date

Service Manager Signature

Date

Customer Satisfaction Program 23B17













Mobile Service Repair Assessment

Assessment levels have been identified to help determine the ease of performing eligible mobile service repairs for a Field Service Action (FSA) outside of the dealership service facility.


Dealer Bulletin



Within Attachment I of the dealer bulletin a mobile service repair assessment level(s) will be provided. These assessment levels have been determined using the amount of time, equipment and labor identified to perform the intended service action.

Assessment Levels


-  - Mobile Reprogramming
-   - Light Mobile Service
-    - Enhanced Mobile Service
-     - Advanced Mobile Service
-  - Wheel and Tire Mobile Service
-  - Not a Mobile Service Repair

Description of each level that is used to determine the overall assessment.

-  – Mobile Reprogramming
 - Module Programming or similar type services
 - Minimum tools maybe required other than an **IDS/FDRS** setup
 - FDRS programming that requires internet connection (wi-fi or mobile hotspot)
 - Make sure vehicle has a charge port to ensure battery voltage is maintained during flashing of the module(s)
 - Repairs not greater than 1 hour in length (including time to wait for programming)

Note: The location will need a charging station or wall box to maintain the 12-volt battery.
-   – Light Mobile Service
 - Interior repair procedures that do not require seat, dash, or headliner removal
 - Under hood repairs that do not require large component removal
 - Exterior repairs that do not require large component/panel removal
 - Repairs may require standard hand tools (Access to a Technician starter kit or similar)

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   – Enhanced Mobile Service

- ***A two-person process is required anytime a procedure requires work under the vehicle***
 - Brake Inspection and Brake Repair/Replacement
 - Limited Suspension Component replacement (no alignment)
 - Under Vehicle access for limited repairs (no large component removal)
 - Vehicle Check Up - VCU
 - Pre-Delivery Inspection - PDI
 - Used Car Inspection/Presale Inspection
 - May require floor jack, jack stands, and impact tools
- Note: Wheel lock may be required.*

    – Advanced Mobile Service

- Fluid Exchange/Oil Change
- Light Repairs
- Brake Hydraulic Repairs

 – Wheel and Tire Mobile Service

- Tire Removal from Wheel
- Tire Balancing
- Tire Repair

Note: Specialized Mobile Service unit and equipment including Tire balancer and Tire Changer required.

 – Not a Mobile Service Repair

- Large component removal
- BEV Battery Replacement
- Requires a vehicle hoist – to complete the repair (more than inspection)
- Required vehicle alignment
- Requires significant vehicle disassembly
- Repairs greater than 2-3 hours
- Any repairs that require M-Time
- Includes a service procedure where the vehicle owner may be distressed about the state of their vehicle

CERTAIN 2023 MODEL YEAR F-150 RAPTOR R AND MUSTANG GT 500 VEHICLES EQUIPPED WITH A 5.2L 32V TI-VCT SUPERCHARGED ENGINE—ENGINE FRONT COVER AND CAM COVER REPLACEMENT



NOTICE: For this Field Service Action (FSA), it is not necessary to remove the engine oil pan. Follow technical instructions carefully.

NOTE: For F-150 Raptor R service procedure see below.

NOTE: For Mustang GT 500 service procedure proceed to Page 19.

F-150 RAPTOR R SERVICE PROCEDURE



NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces, that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

1. Release the fuel system pressure. Follow the Workshop Manual (WSM) procedures in Section 310-00F.
2. Disconnect the battery ground cable. Follow the WSM procedures in Section 414-01.
3. Drain the engine cooling system. Follow the WSM procedures in Section 303-03F.
4. Remove the Degas Bottle. Follow the WSM procedures in Section 303-03F.
5. Remove the Air Cleaner. Follow the WSM procedures in Section 303-12F.
6. Remove the Right Hand (RH) valve cover. Follow the WSM procedures in Section 303-01F.
7. Remove the Left Hand (LH) valve cover. Follow the WSM procedures in Section 303-01F.
8. Remove the Coolant Pump. Follow the WSM procedures in Section 303-03F.
9. Remove the Supercharger Belt Tensioner. Follow the WSM procedures in Section 303-05F.
10. Remove the Supercharger Belt Idler Pulleys. Follow the WSM procedures in Section 303-05F.
11. Remove the Accessory Drive Belt Tensioner. Follow the WSM procedures in Section 303-05F.
12. Remove the Crankshaft Front Seal. Follow the WSM procedures in Section 303-01F.
13. Drain the engine oil. Remove and discard the engine oil filter. Follow the WSM procedures in Section 303-01E.



14. Remove the transmission cooler tube bracket nut. See Figure 1.

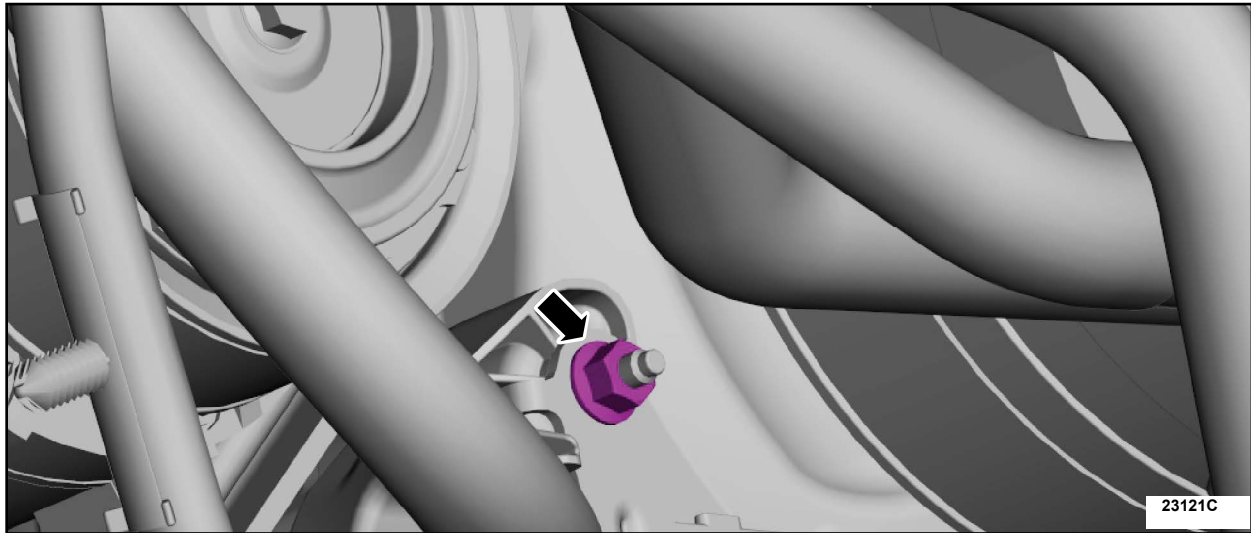


FIGURE 1

15. Detach the transmission cooler tube retainer. See Figure 2.

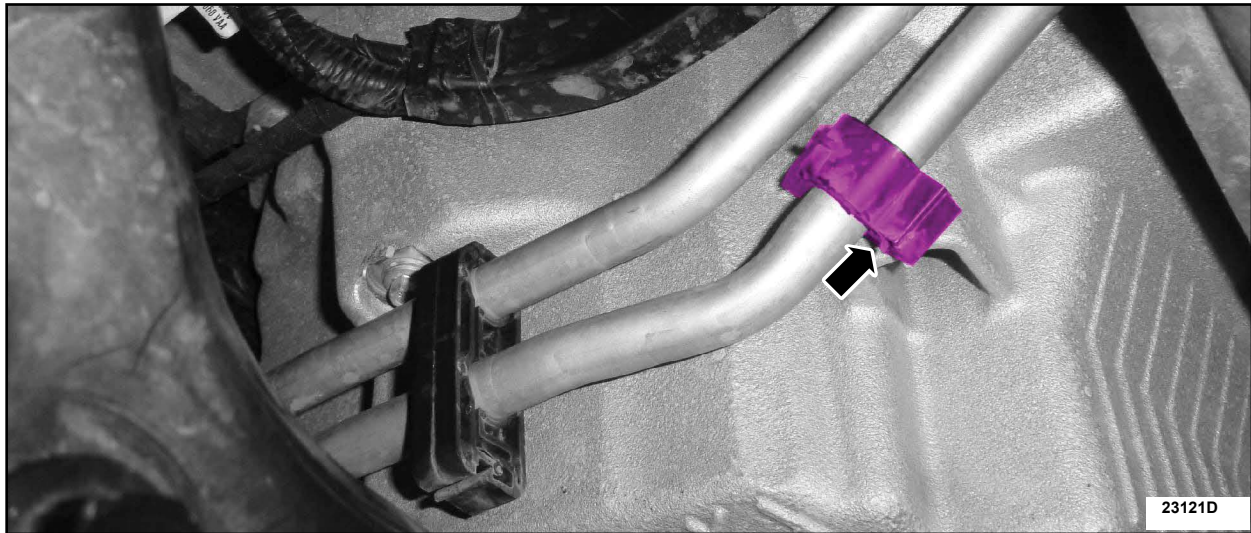


FIGURE 2



16. Remove the transmission cooler tube bracket retainer and nut. See Figure 3.

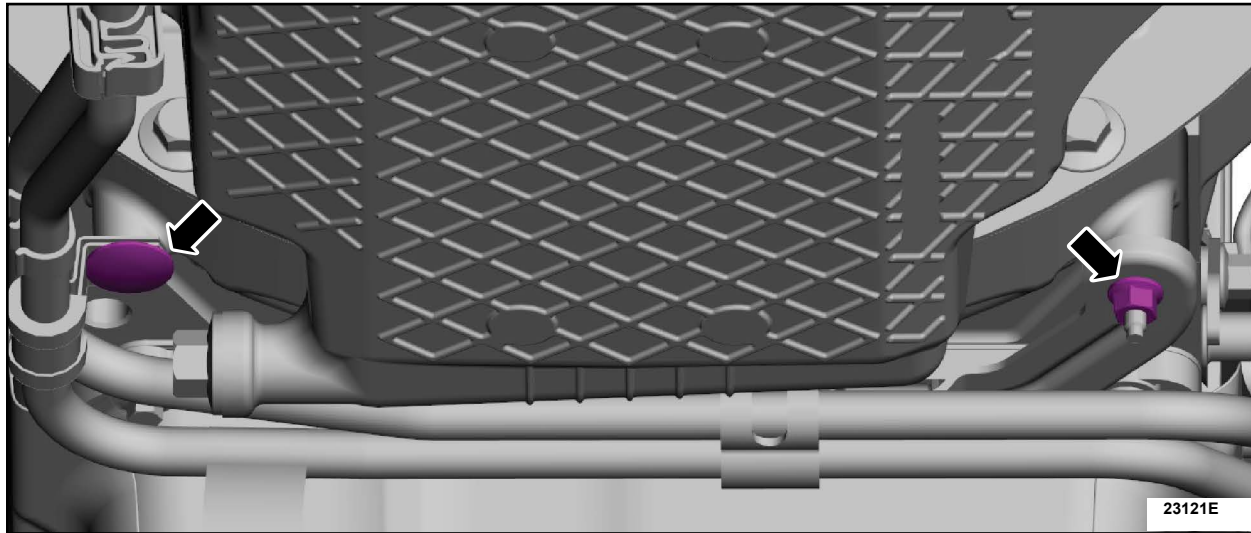


FIGURE 3

17. Position the transmission cooler tube bracket aside. See Figure 4.

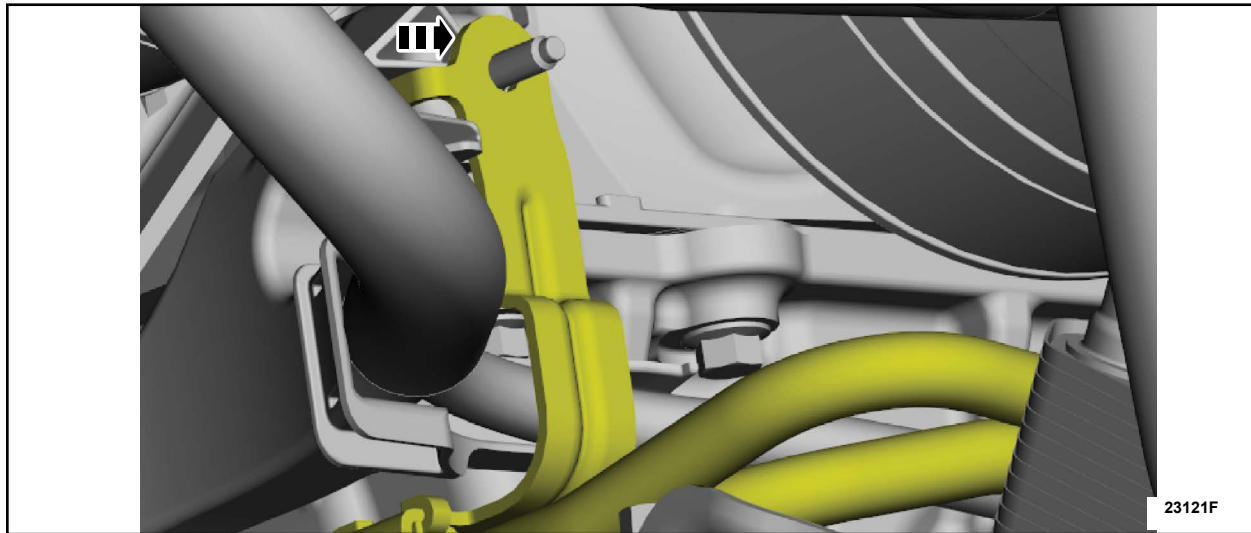


FIGURE 4



18. Disconnect the A/C compressor electrical connectors, detach the wiring harness retainer, remove the retainer and position the wiring harness aside. See Figure 5.

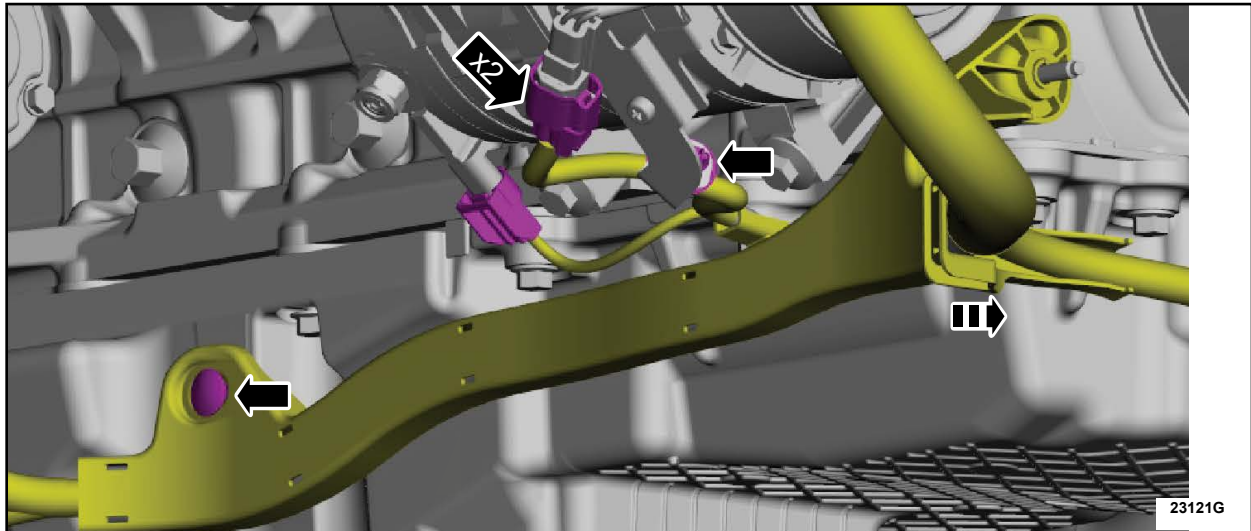


FIGURE 5

19. Detach the wiring harness retainer, remove the nut and position the wiring harness aside. See Figure 6.

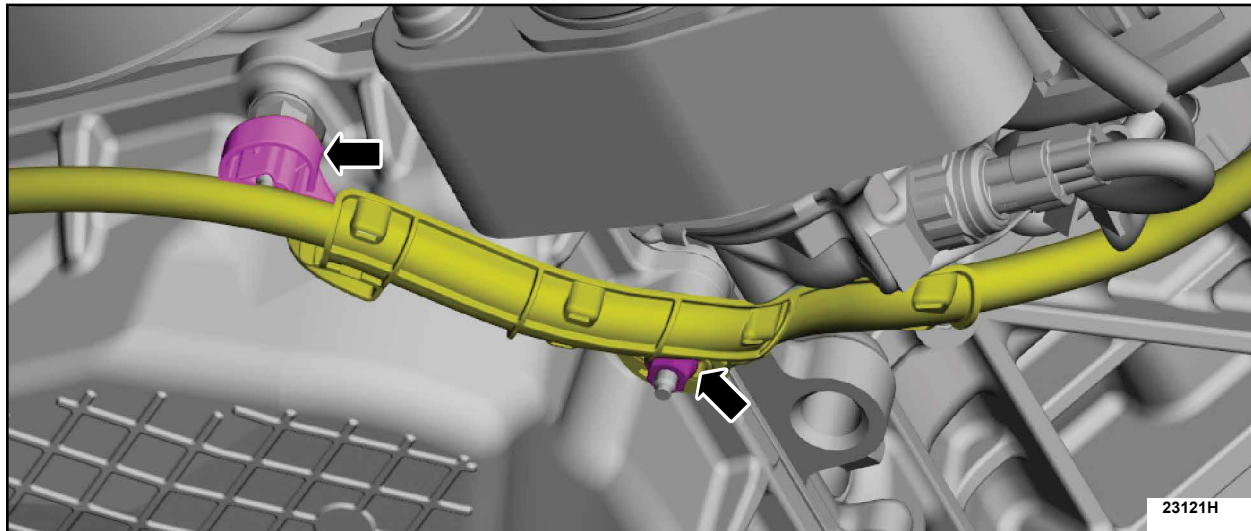


FIGURE 6



20. Remove the four oil pan to engine front cover fasteners. See Figure 7.

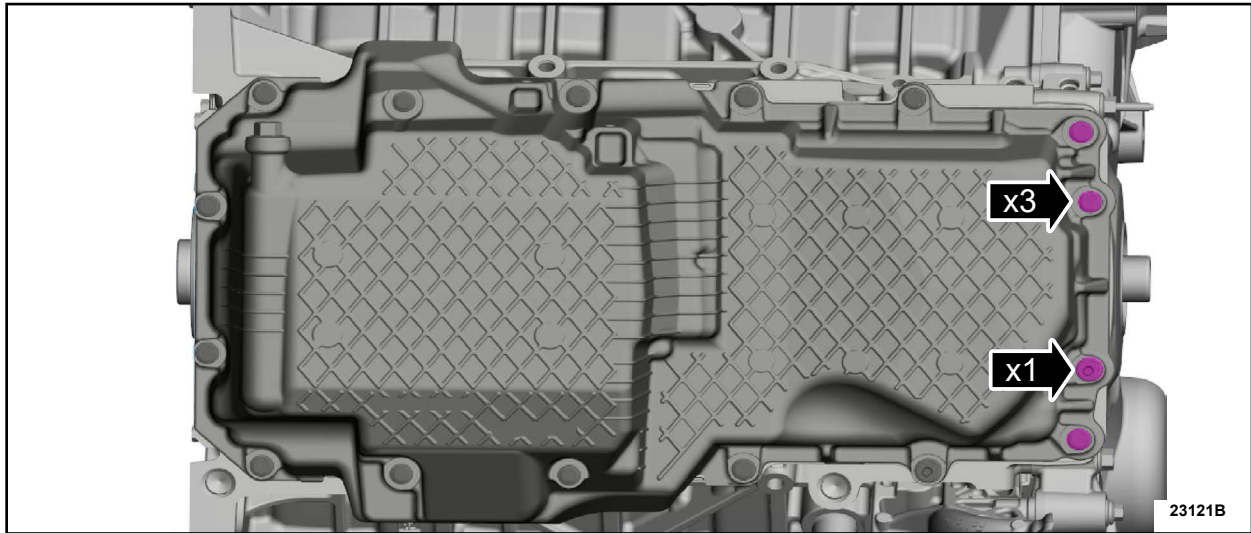


FIGURE 7

21. Detach the wiring harness retainers, remove the nut and ground wire. See Figure 8.

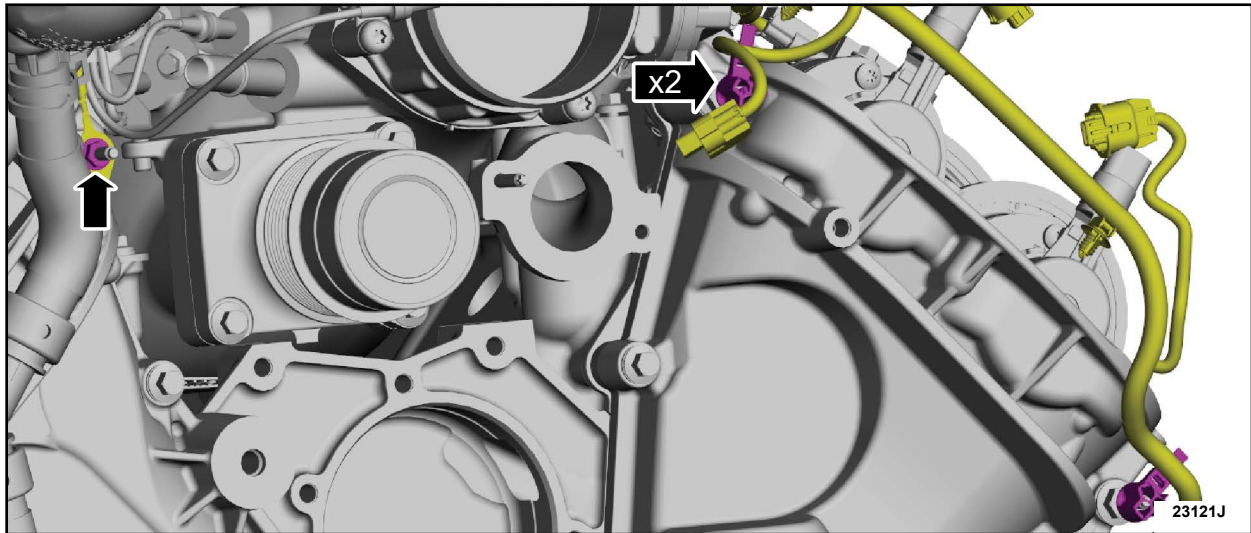


FIGURE 8



22. Secure the coolant hoses aside. See Figure 9.

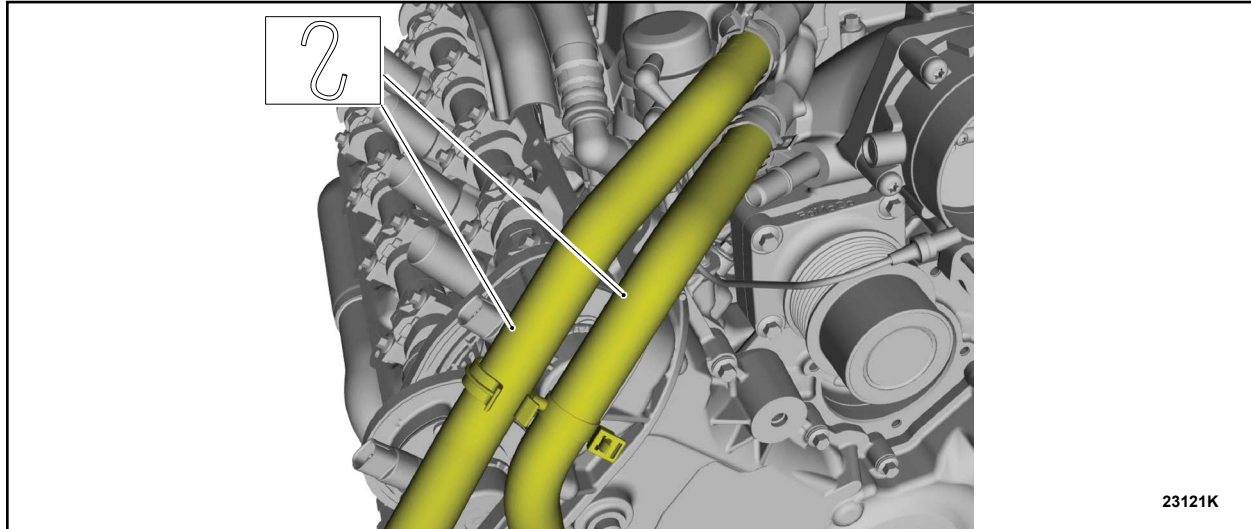


FIGURE 9

23. Remove the bolts and position the generator aside. See Figure 10.

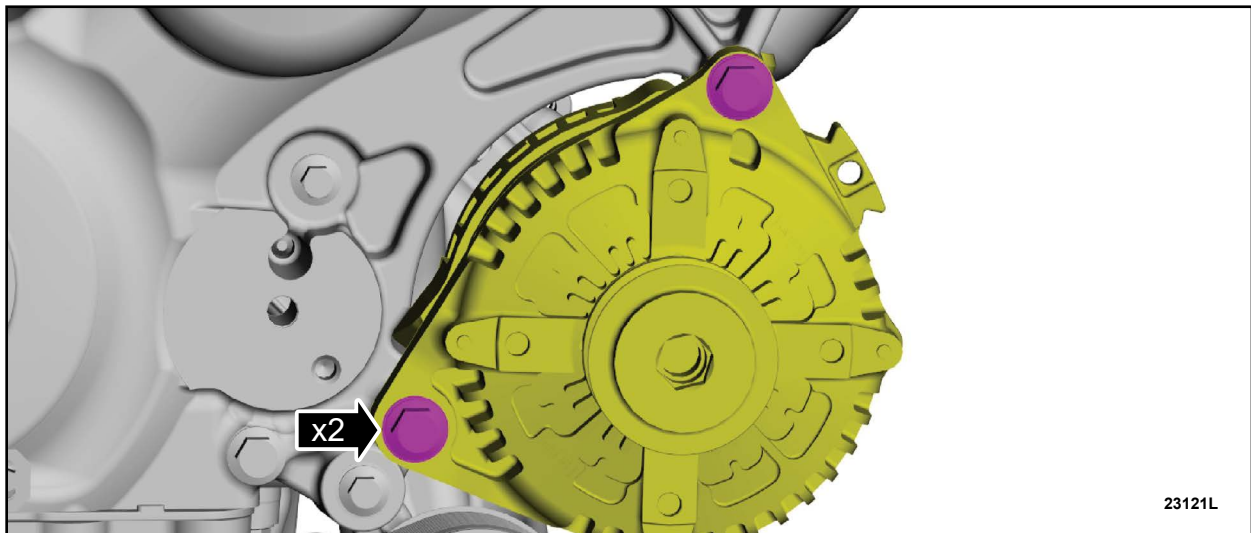


FIGURE 10

24. Remove the Oil Cooler. Follow the WSM procedures in Section 303-01F.



25. Remove the bolts and position the A/C compressor aside. See Figure 11.

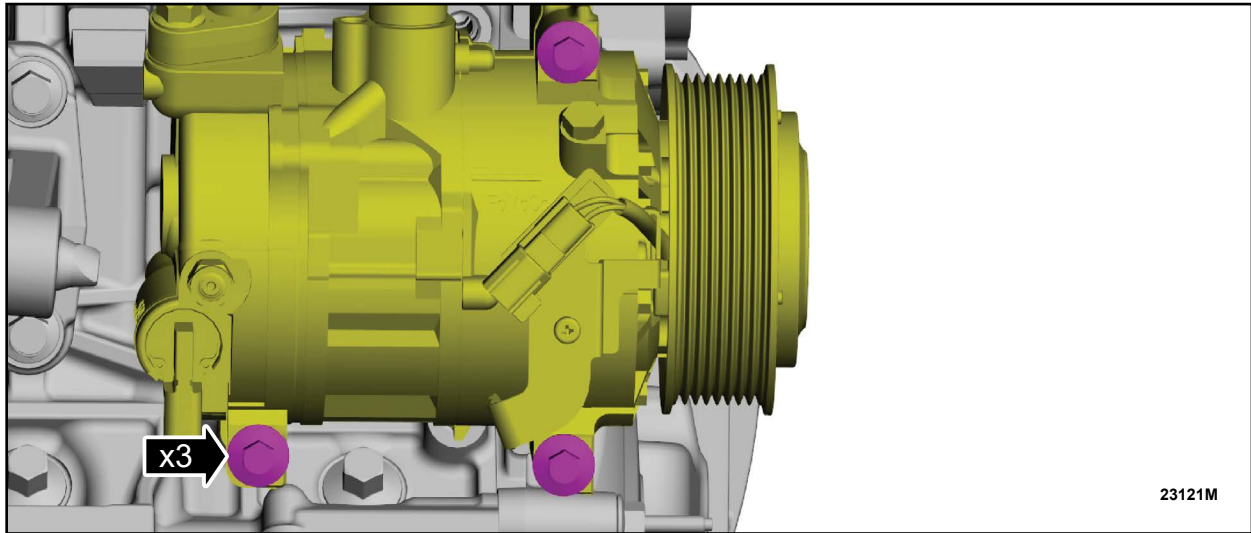


FIGURE 11

26. Remove the engine front cover-to-oil filter adapter bolt. See Figure 12.

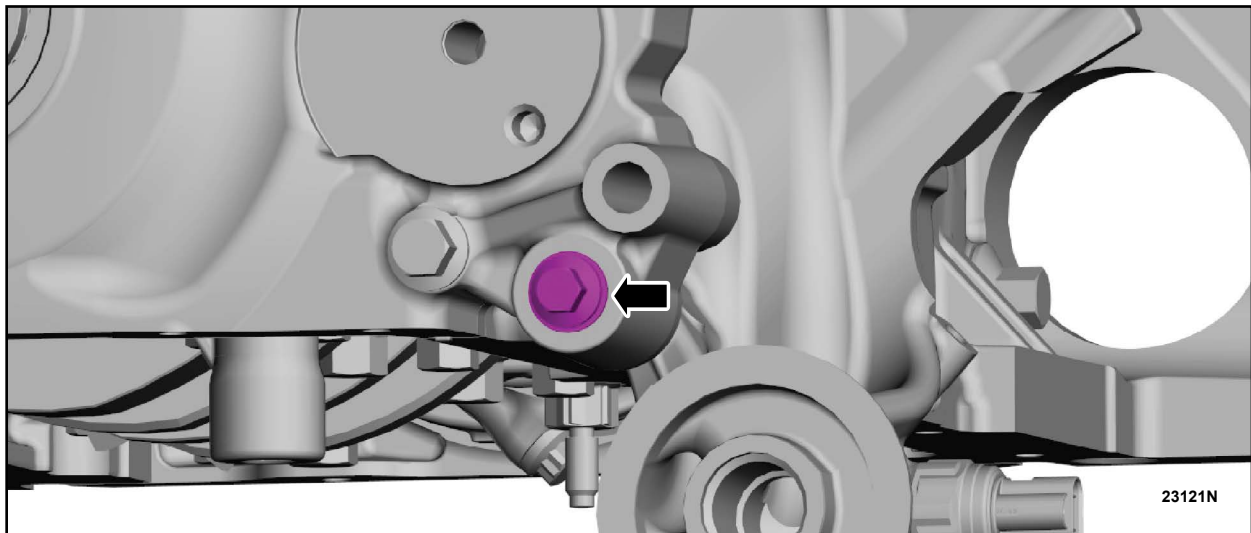


FIGURE 12



27. Using a 10 mm Hex Bit loosen the engine front cover-to-oil filter adapter jack screw. See Figure 13.

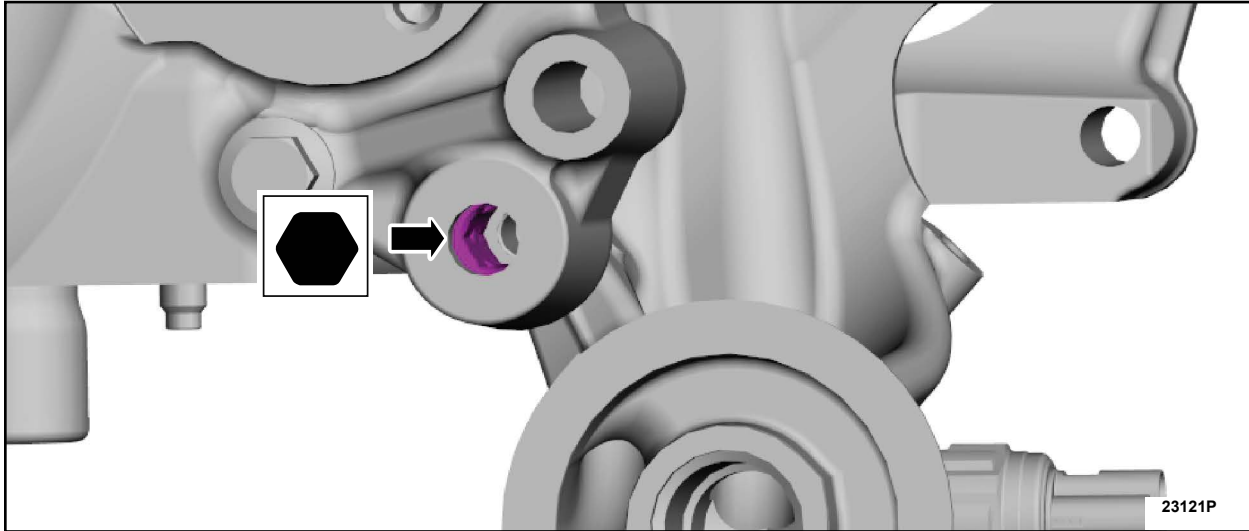


FIGURE 13

NOTE: There are 3 different fasteners used, note the location of fasteners for assembly.

28. Remove the fasteners and the front cover. See Figure 14.

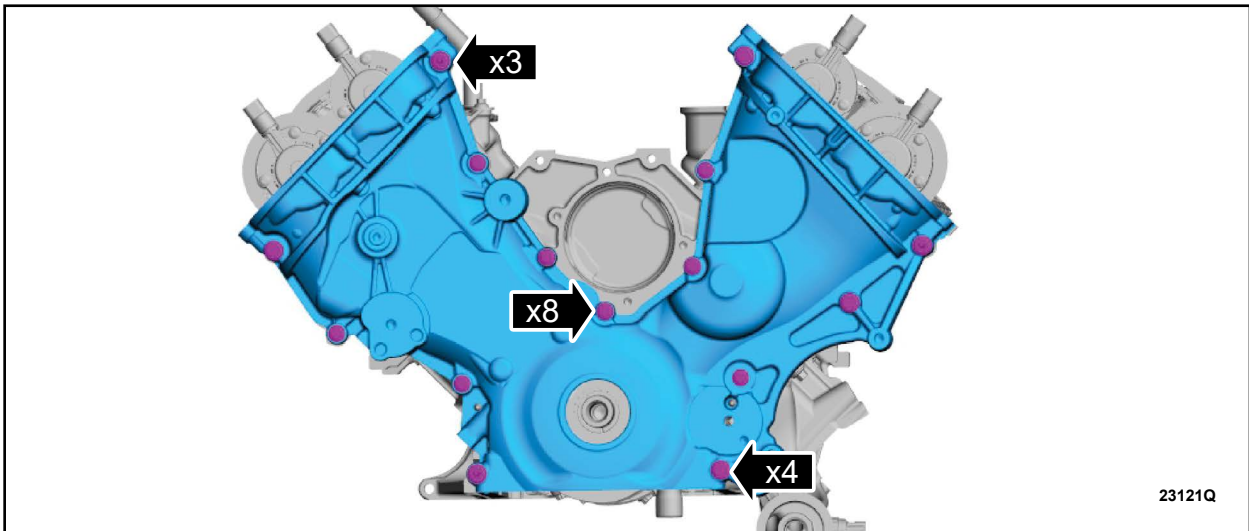


FIGURE 14



29. Install *new* gaskets on the *new* engine front cover. See Figure 15.

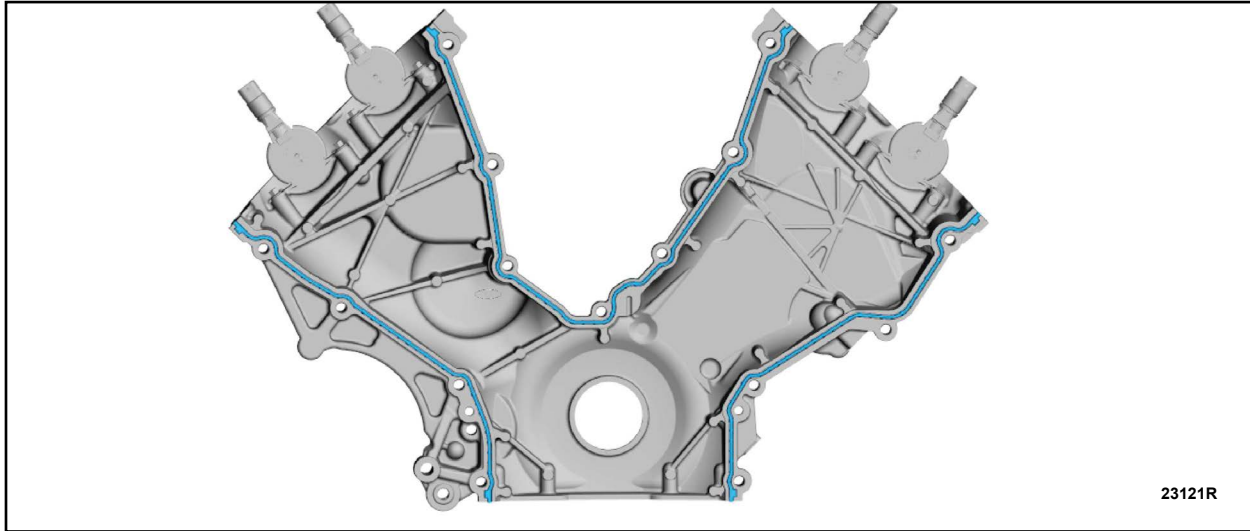


FIGURE 15



NOTICE: The Variable Camshaft Timing (VCT) variable force solenoid pins must be fully depressed to avoid interference with the VCT valve tips when installing the engine front cover. Failure to follow these instructions can result in damage to the engine.

NOTE: RH shown, LH similar

30. Fully depress the VCT variable force solenoid pins. See Figure 16.

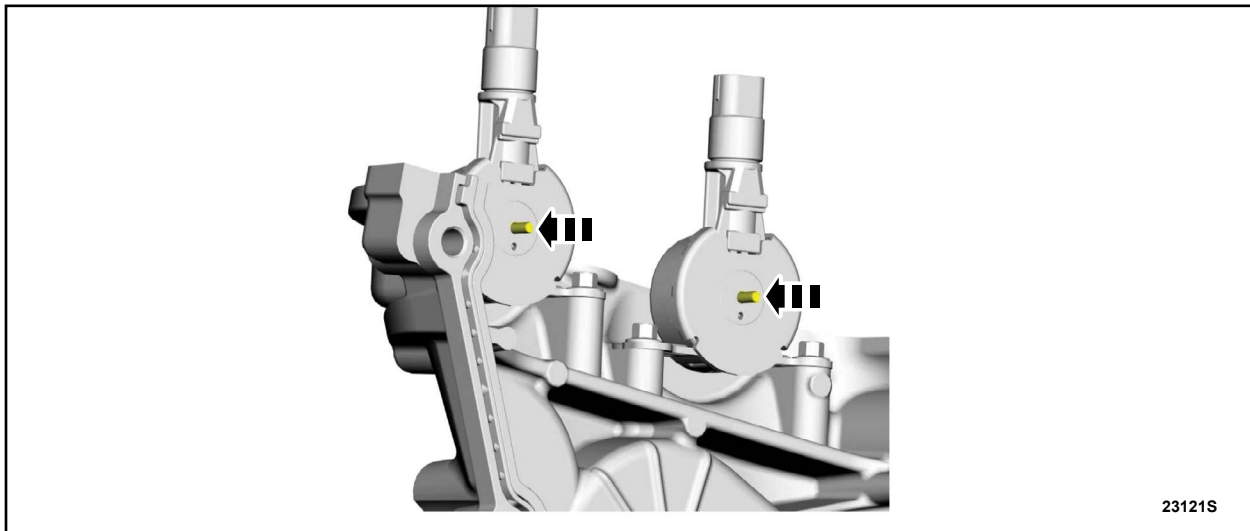


FIGURE 16





NOTICE: The *new* engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the *new* engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 71 lb-in (8 Nm) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage

31. Using Motorcraft® Silicone Gasket and Sealant / TA-30 (WSE-M4G323-A4) apply 0.59 in (15 mm) diameter drops of silicone gasket and sealant to the cylinder head-to-cylinder block joints. See Figure 17.

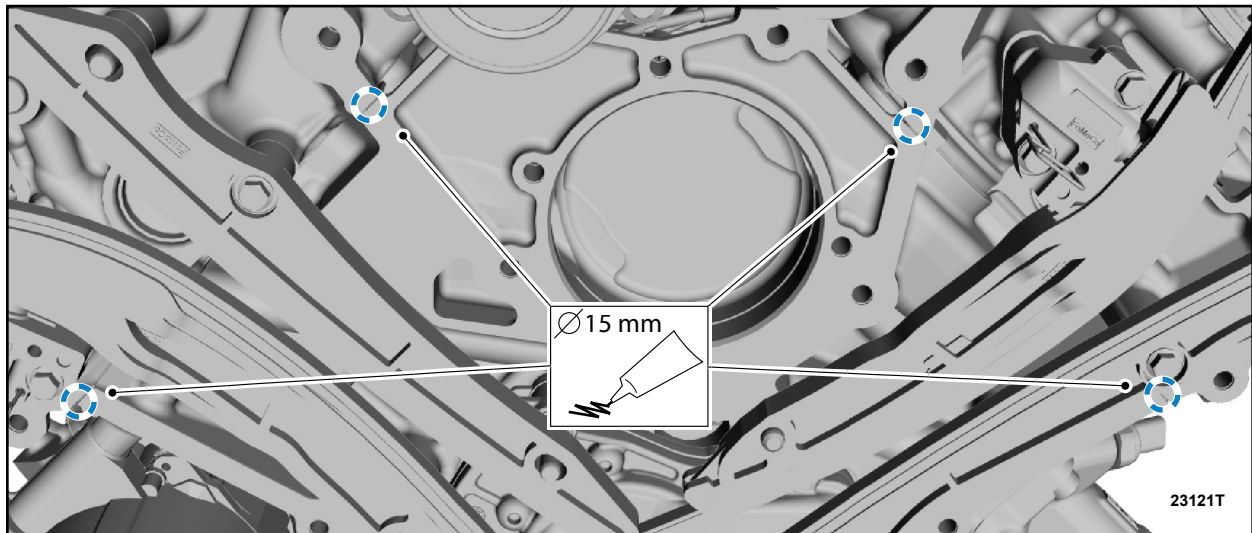


FIGURE 17

32. Install the *new* engine front cover and the fasteners. See Figure 18.

- Torque: Stage 1: 25 Nm (18 lb.ft).
- Torque: Stage 2: 60°.

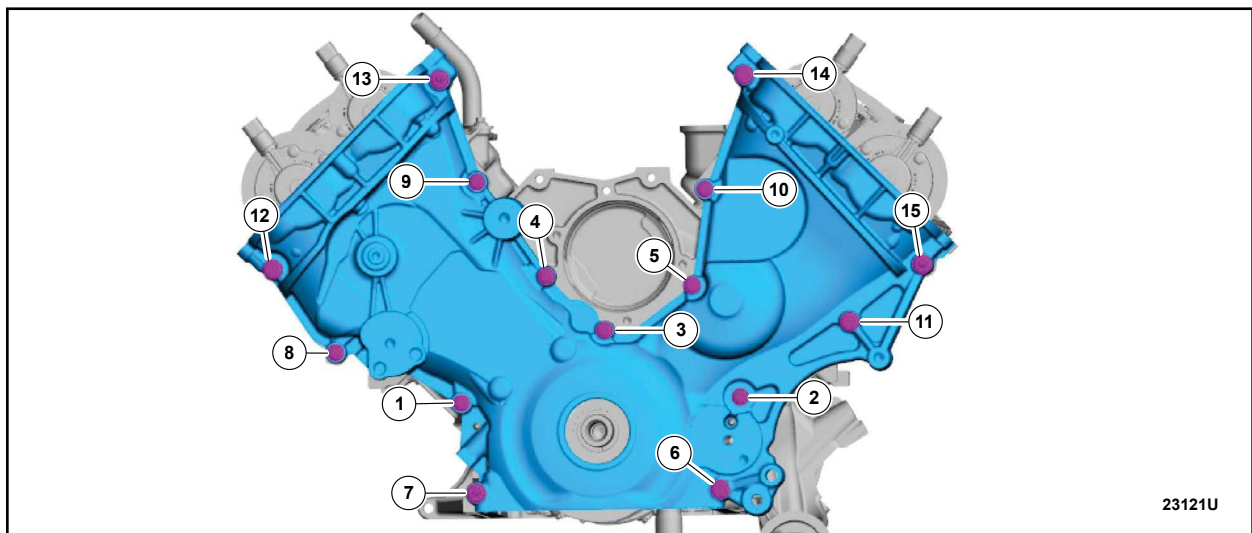


FIGURE 18



33. Using a 10 mm Hex Bit, turn the engine front cover-to-oil filter adapter jack screw into contact with the oil filter adapter. See Figure 19.

- Torque: 5 Nm (44 lb.in).

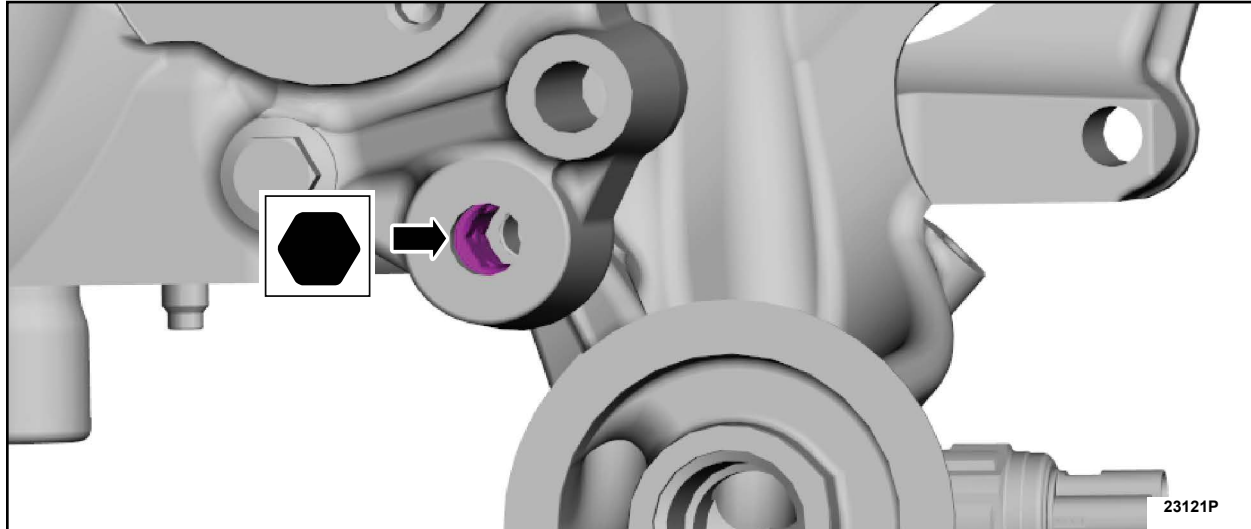


FIGURE 19

34. Install the engine front cover-to-oil filter adapter bolt. See Figure 20.

- Torque: Stage 1: 25 Nm (18 lb.ft).
- Torque: Stage 2: 60°.

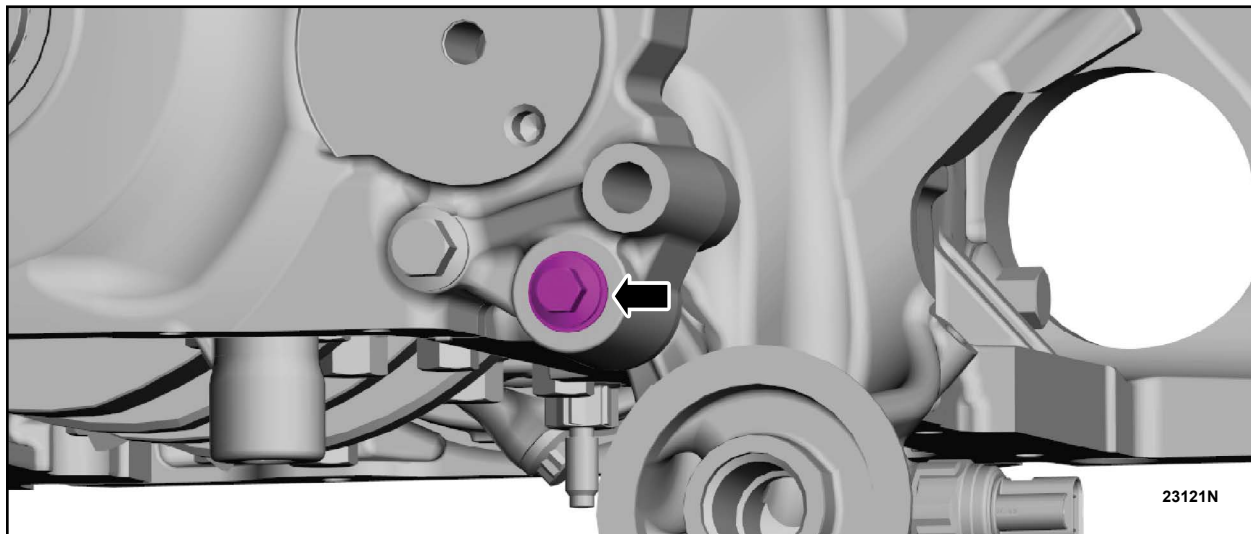


FIGURE 20



35. Position the A/C compressor and install the bolts. See Figure 21.

- Torque: 25 Nm (18 lb.ft).

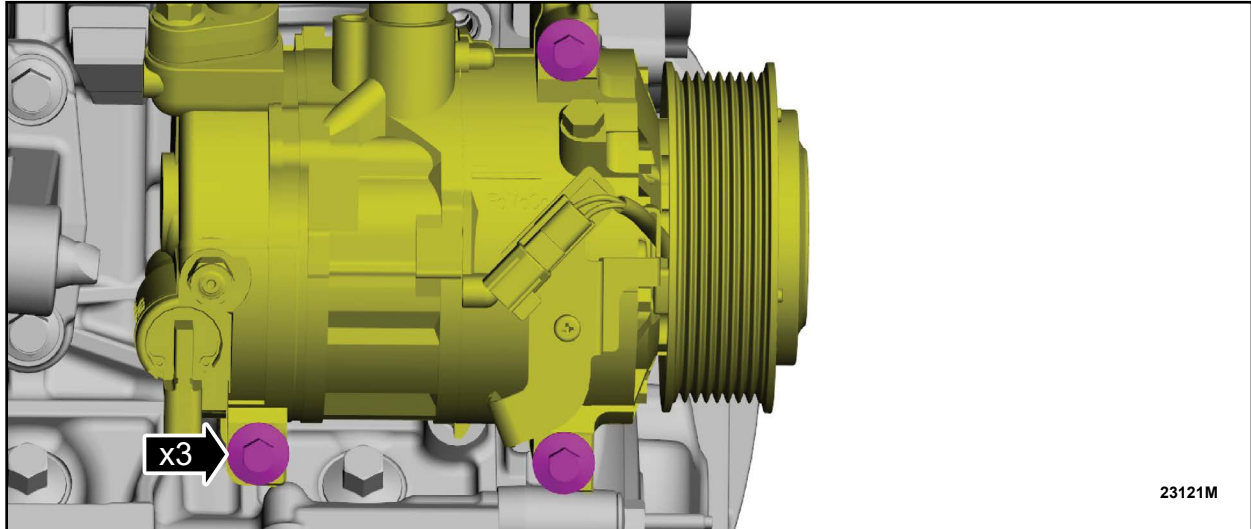


FIGURE 21

36. Install the Oil Cooler. Follow the WSM procedures in Section 303-01F.

37. Position the generator and install the bolts. See Figure 22.

- Torque: 48 Nm (35 lb.ft).

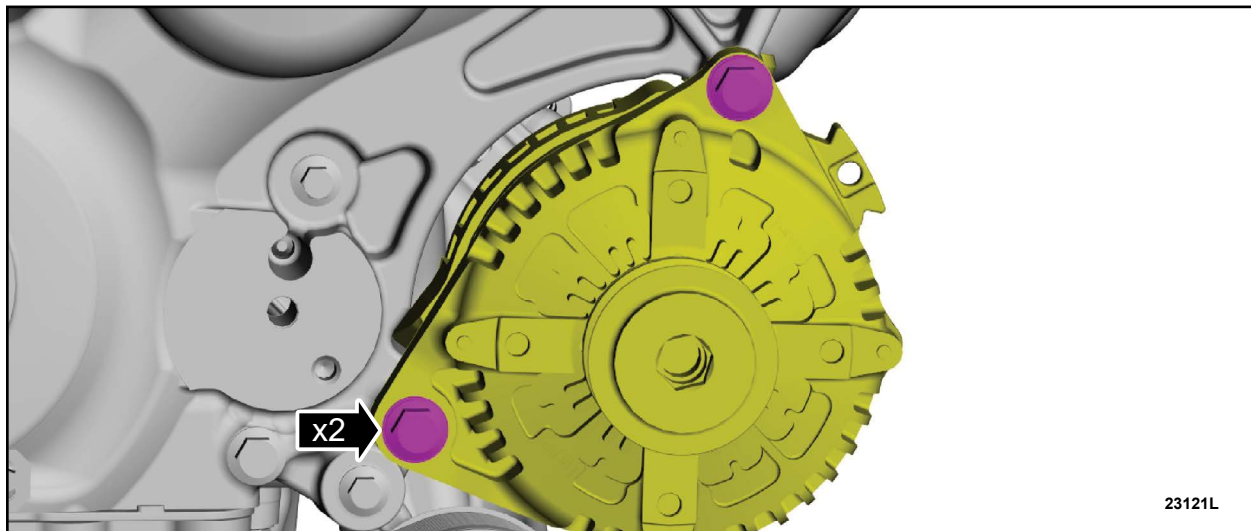


FIGURE 22



38. Position back the coolant hoses See Figure 23.

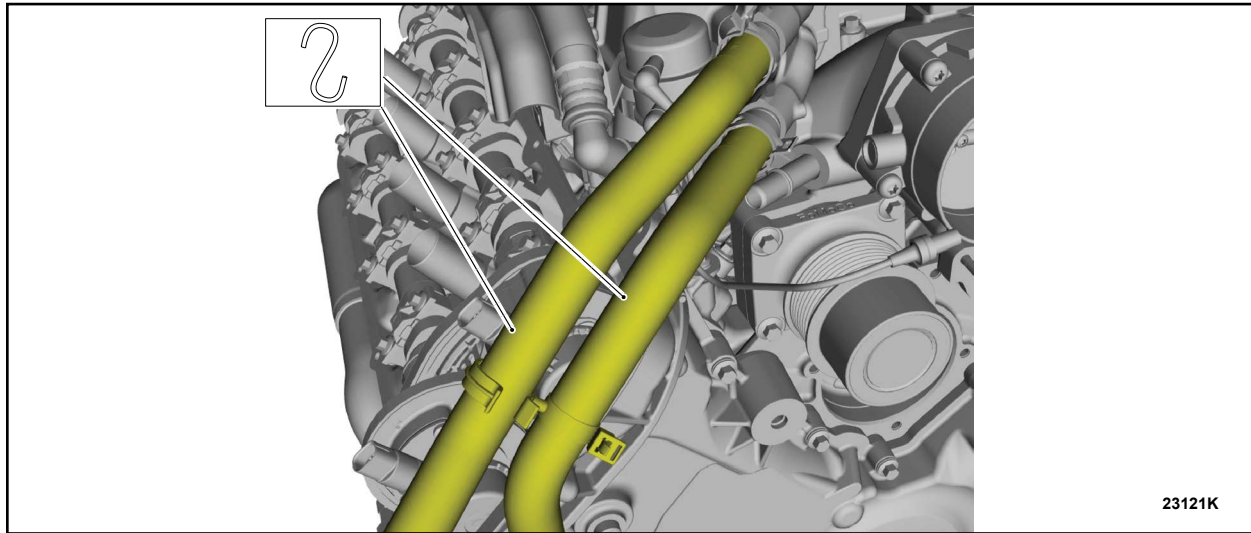


FIGURE 23

39. Attach the wiring harness retainers, install the ground wire and nut. See Figure 24.

• Torque: 10 Nm (89 lb.in).

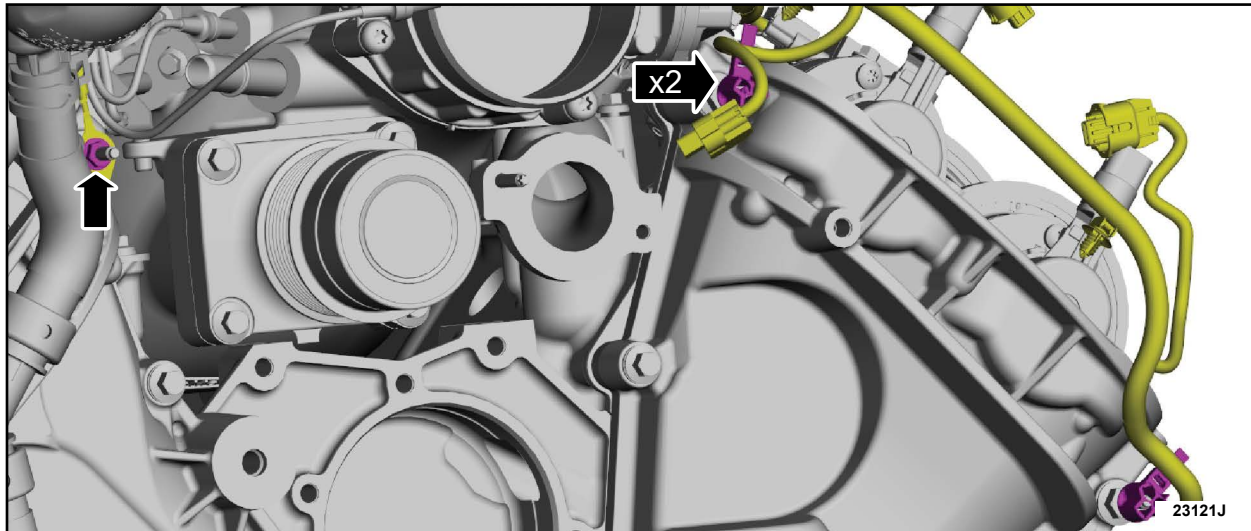


FIGURE 24



40. Install the four oil pan to engine front cover fasteners. See Figure 25.

- Torque: Stage 1: 10 Nm (89 lb.in).
- Torque: Stage 2: 45°

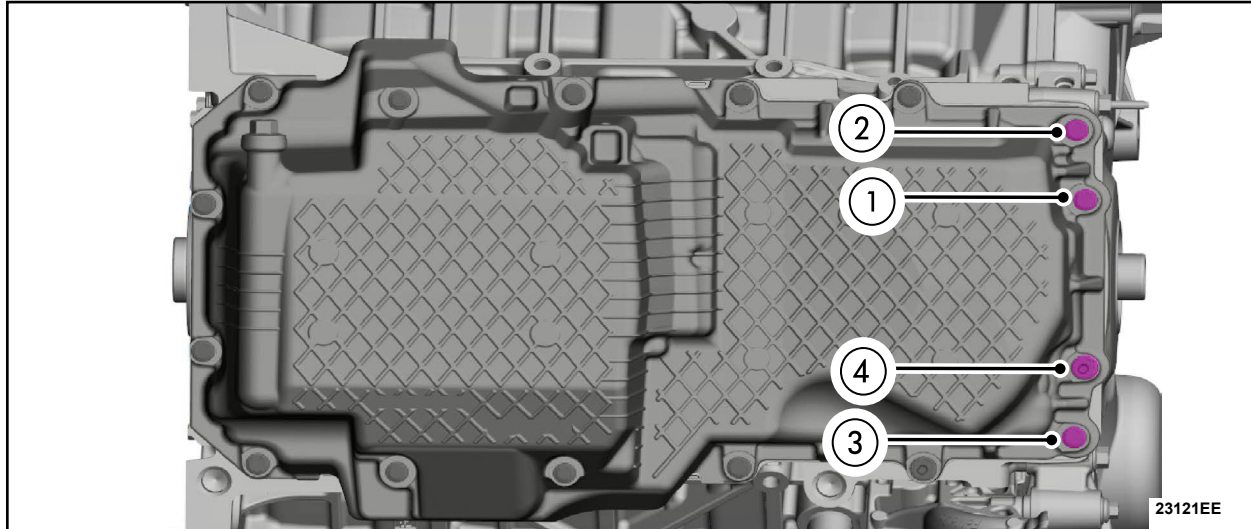


FIGURE 25

41. Attach the wiring harness retainer and install the nut. See Figure 26.

- Torque: 12 Nm (106 lb.in).

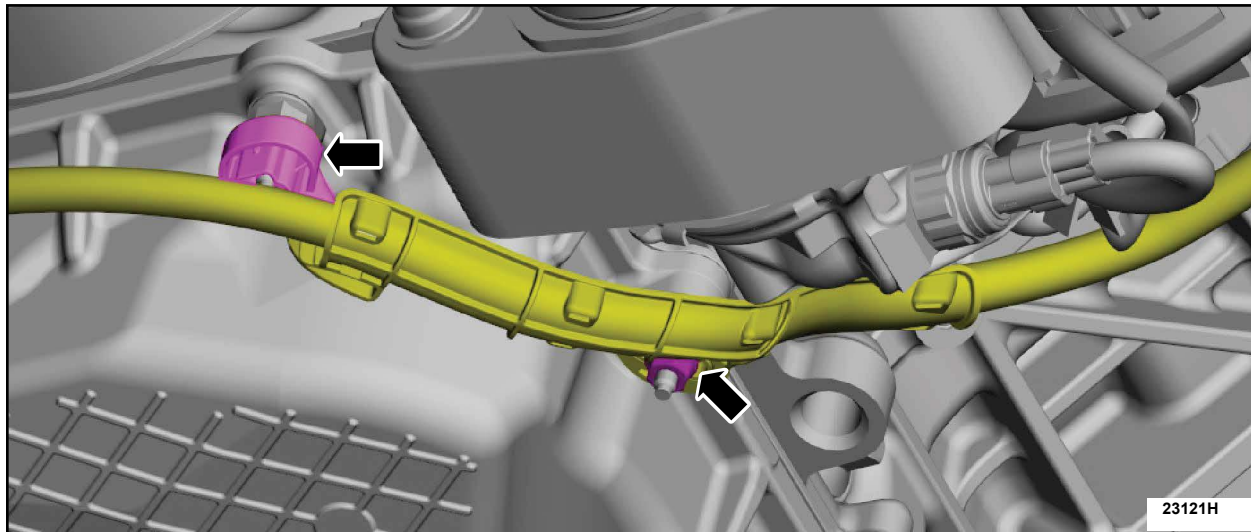


FIGURE 26



42. Position the wiring harness, install the retainer, attach the wiring harness retainer, connect the A/C compressor electrical connectors. See Figure 27.

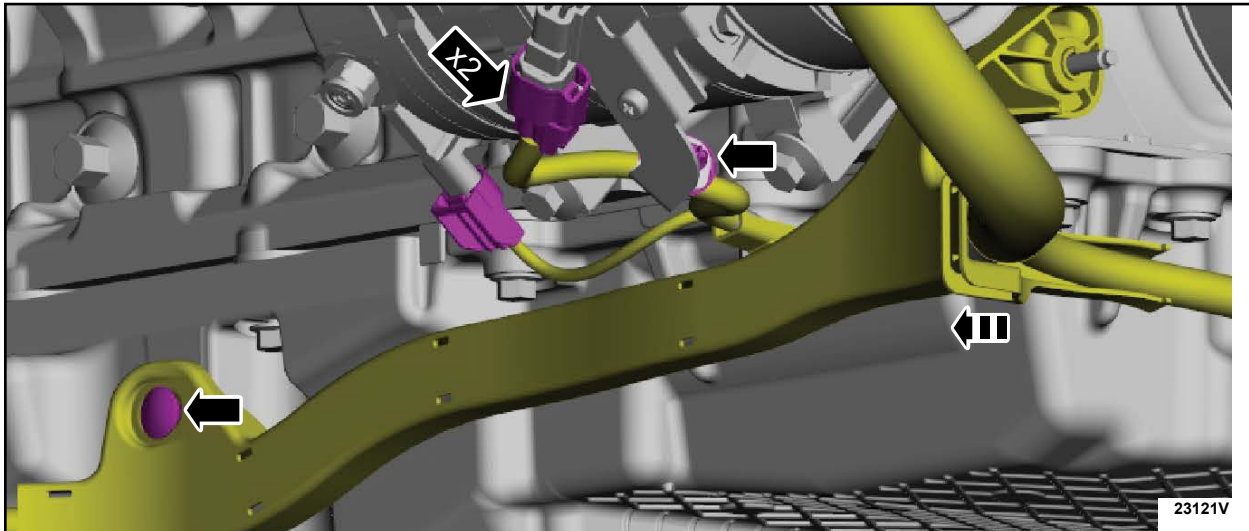


FIGURE 27

43. Position the transmission cooler tube bracket onto the stud bolt. See Figure 28.

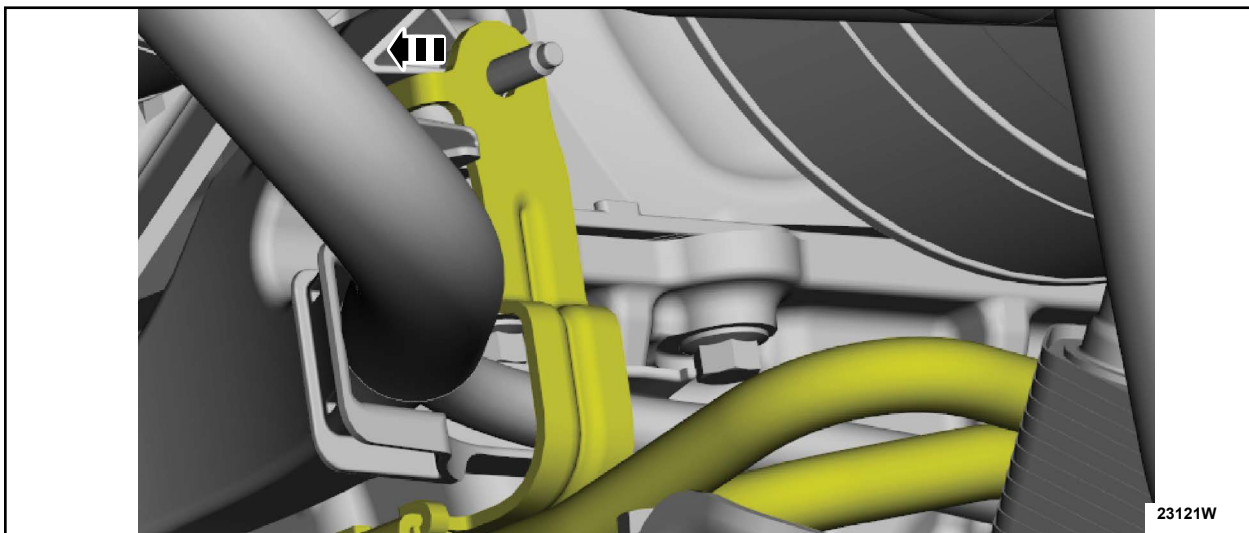


FIGURE 28



44. Install the transmission cooler tube bracket retainer and transmission cooler tube bracket nut. See Figure 29.

- Torque: 12 Nm (106 lb.in).

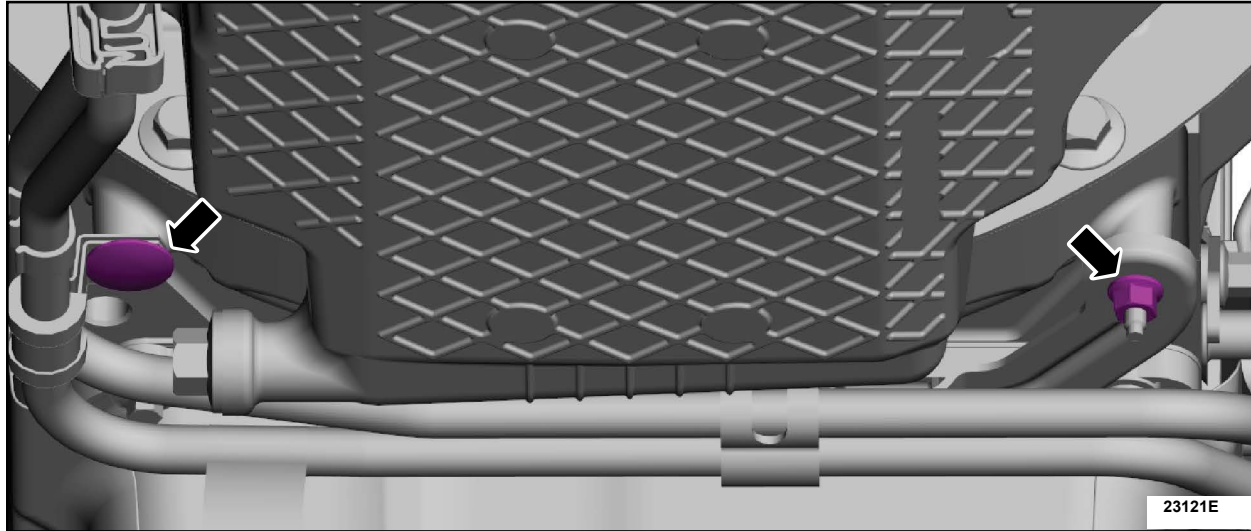


FIGURE 29

45. Attach the transmission cooler tube retainer. See Figure 30.

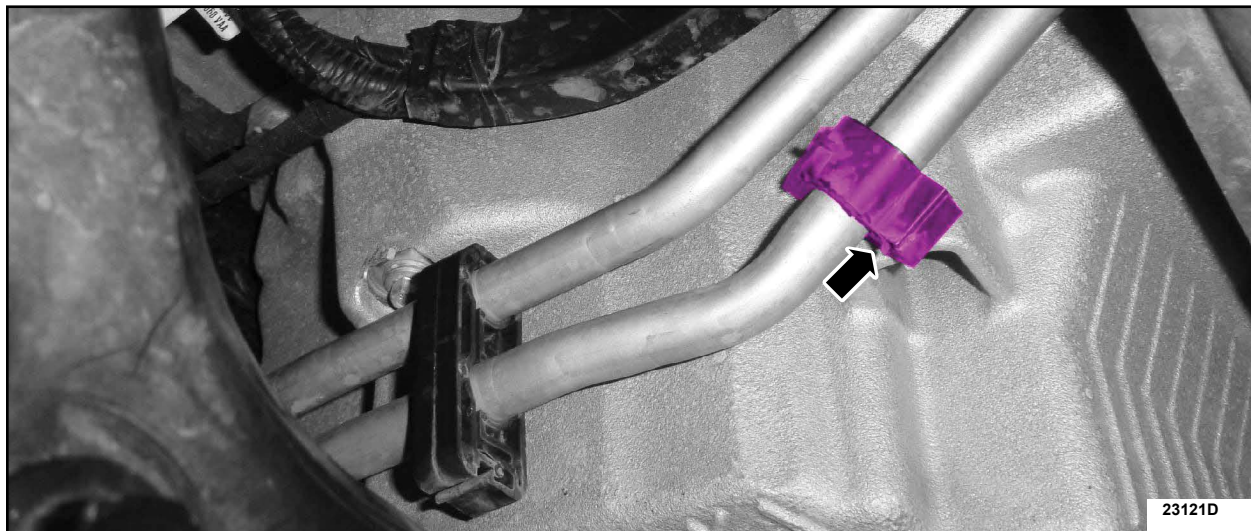


FIGURE 30



46. Attach the transmission cooler tube bracket nut. See Figure 31.

- Torque: 12 Nm (106 lb.in).

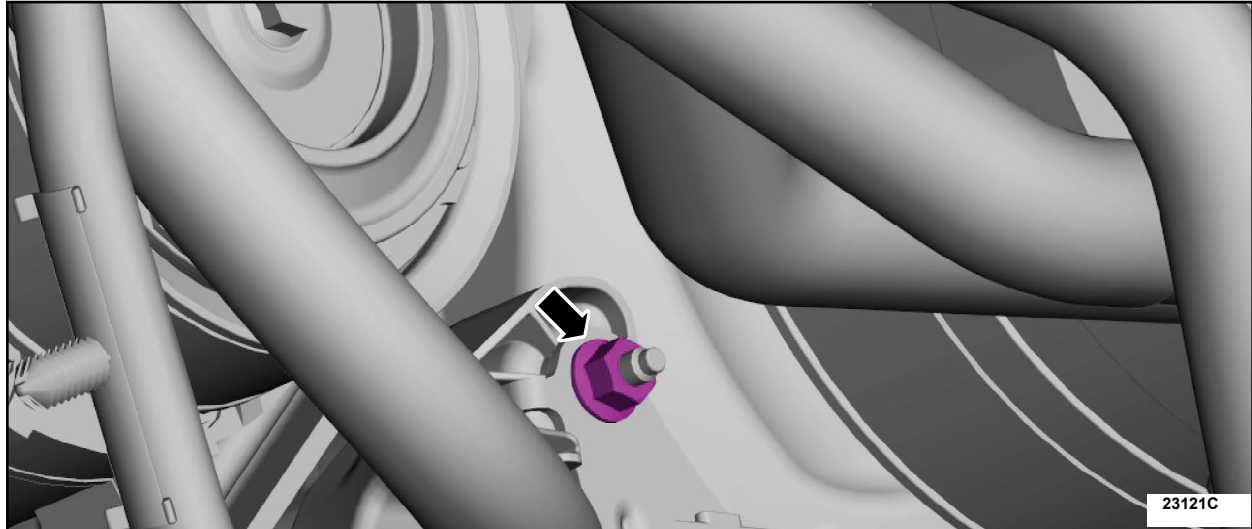


FIGURE 31

47. Install the *new* Crankshaft Front Seal. Follow the WSM procedures in Section 303-01F.
48. Install the Accessory Drive Belt Tensioner. Follow the WSM procedures in Section 303-05F.
49. Install the Supercharger Belt Idler Pulleys. Follow the WSM procedures in Section 303-05F.
50. Install the Supercharger belt tensioner. Follow the WSM procedures in Section 303-05F.
51. Install the Coolant pump. Follow the WSM procedures in Section 303-03F.
52. Install the LH valve cover. Follow the WSM procedures in Section 303-01F.
53. Install the RH valve cover. Follow the WSM procedures in Section 303-01F.
54. Install the Air Cleaner. Follow the WSM procedures in Section 303-12F.
55. Install the Degas Bottle. Follow the WSM procedures in Section 303-03F.
56. Install a *new* engine oil filter. Fill the engine with clean engine oil. Follow the WSM procedures in Section 303-01F.
57. Connect the battery ground cable. Follow the WSM procedures in Section 414-01.



58. Pressurize the fuel system. Follow the WSM procedures in Section 310-00F.
59. Fill and bleed the engine cooling system. Follow the WSM procedures in Section 303-03F.
60. Install the front engine undershield. Follow the WSM procedures in Section 501-02.
61. Use the Powertrain Control Module (PCM) Misfire Monitor Profile Correction routine in the diagnostic scan tool.
62. Road test the vehicle.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.



MUSTANG GT 500 SERVICE PROCEDURE



NOTICE: For this Field Service Action (FSA), it is not necessary to remove the engine oil pan. Follow technical instructions carefully.



NOTICE: During engine repair procedures, cleanliness is extremely important. Any foreign material, including any material created while cleaning gasket surfaces, that enters the oil passages, coolant passages or the oil pan, can cause engine failure.

1. Release the fuel system pressure. Follow the WSM procedures in Section 310-00C.
2. Disconnect the battery ground cable. Follow the WSM procedures in Section 414-01.
3. Drain the engine cooling system. Follow the WSM procedures in Section 303-03C.
4. Remove the Degas Bottle. Follow the WSM procedures in Section 303-03C.
5. Remove the Air Cleaner. Follow the WSM procedures in Section 303-12C.
6. Remove the RH valve cover. Follow the WSM procedures in Section 303-01C.
7. Remove the LH valve cover. Follow the WSM procedures in Section 303-01C.
8. Remove the Coolant Pump. Follow the WSM procedures in Section 303-03C.
9. Remove the Supercharger Belt Tensioner. Follow the WSM procedures in Section 303-05C.
10. Remove the Supercharger Belt Idler Pulleys. Follow the WSM procedures in Section 303-05C.
11. Remove the Accessory Drive Belt Tensioner. Follow the WSM procedures in Section 303-05C.
12. Remove the Accessory Drive Idler Pulley. Follow the WSM procedures in Section 303-05C.
13. Remove the Crankshaft Front Seal. Follow the WSM procedures in Section 303-01C.



14. Detach the wiring harness retainers, remove the nut and the ground wire. See Figure 32

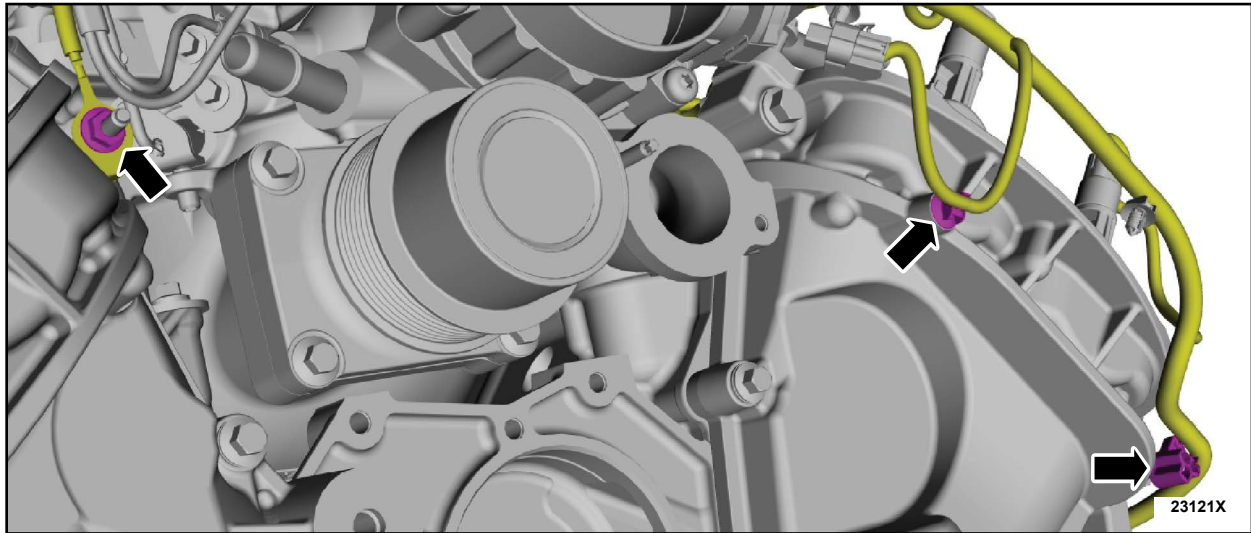


FIGURE 32

15. Secure the coolant hoses aside. See Figure 33.

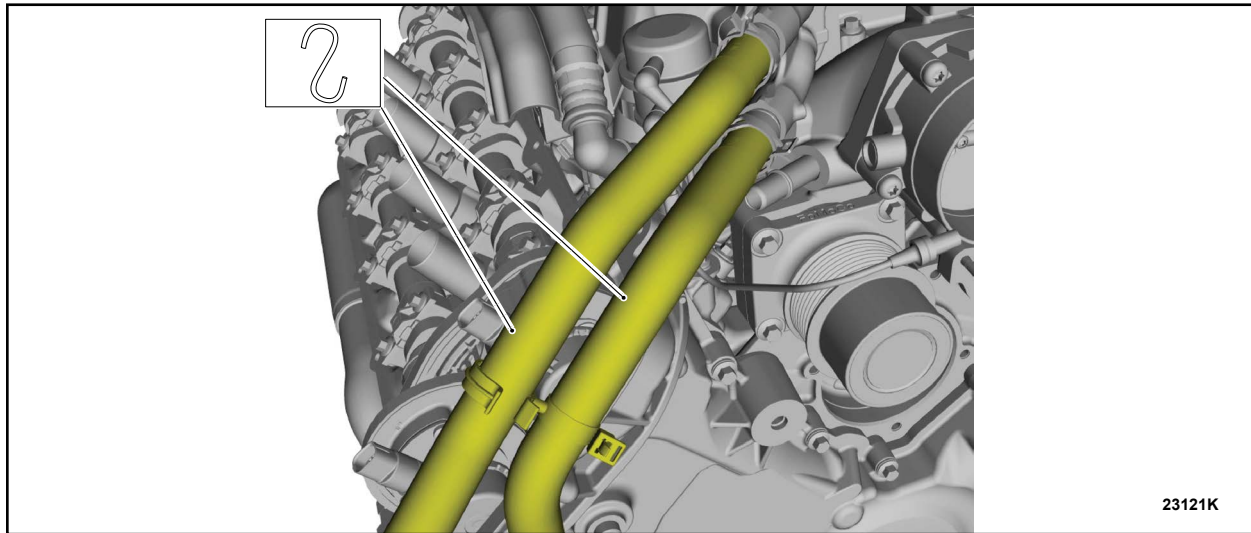


FIGURE 33



16. Remove the fasteners and position the generator aside. See Figure 34.

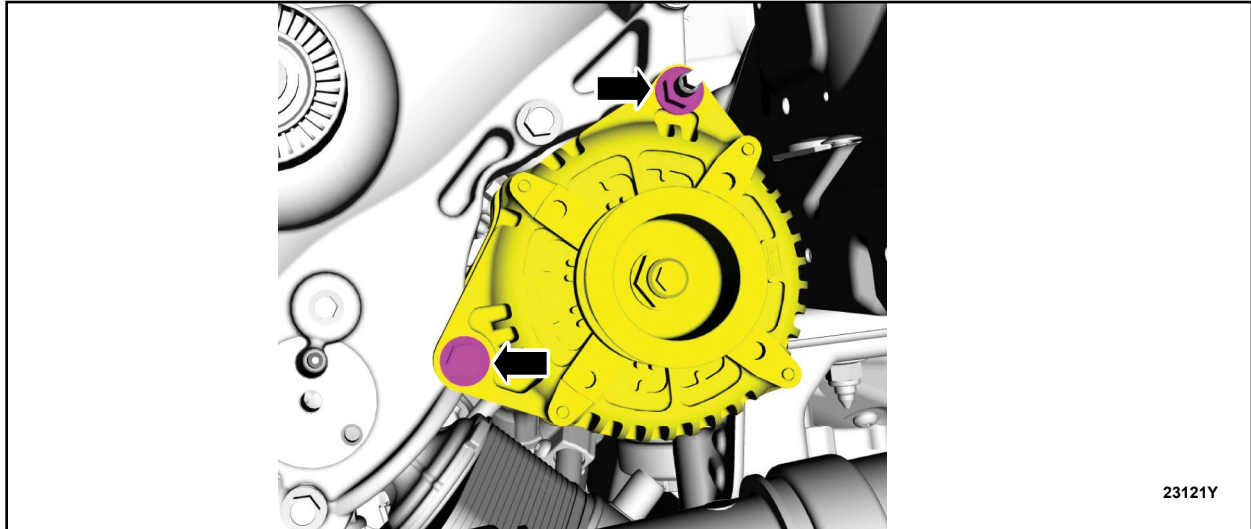


FIGURE 34

17. Drain the engine oil. Remove and discard the engine oil filter. Follow the WSM procedures in Section 303-01C.

18. Remove the nut, disconnect the ground cable, remove the nut, detach the wiring harness bracket from the oil pan stud bolt, disconnect the wiring harness electrical connectors and detach the wiring harness retainers. See Figure 35.

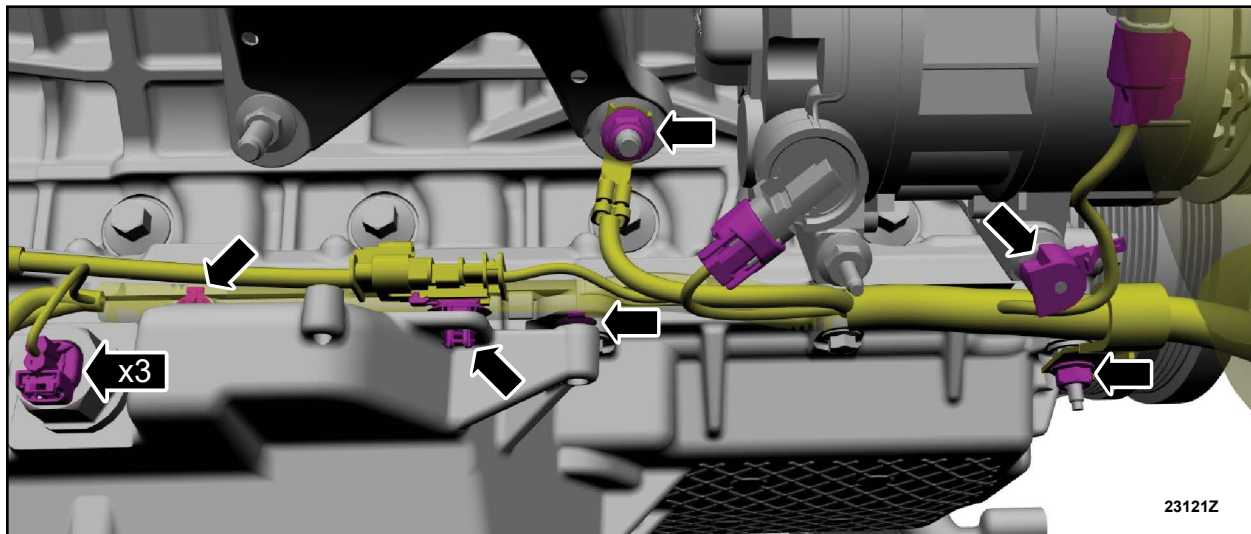


FIGURE 35



NOTE: The fasteners differ in size, note the location of each fastener during removal.

19. Remove the four oil pan to engine front cover fasteners. See Figure 36.

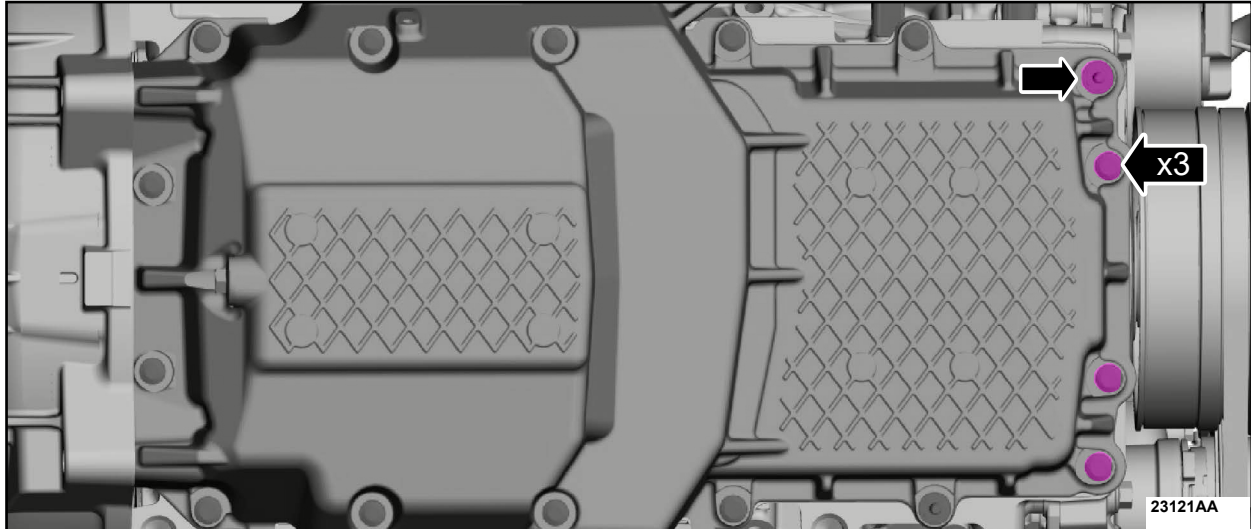


FIGURE 36

NOTE: The fasteners differ in size, note the location of each fastener during removal.

20. Remove the bolts, stud bolts and engine front cover. See Figure 37.

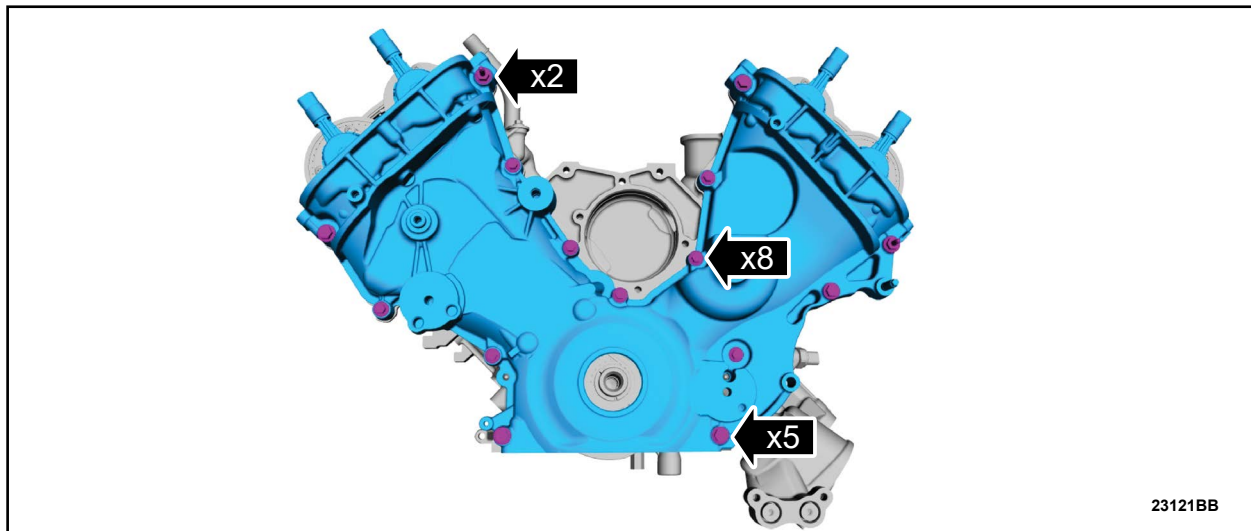


FIGURE 37



21. Install *new* gaskets on the *new* engine front cover. See Figure 38.

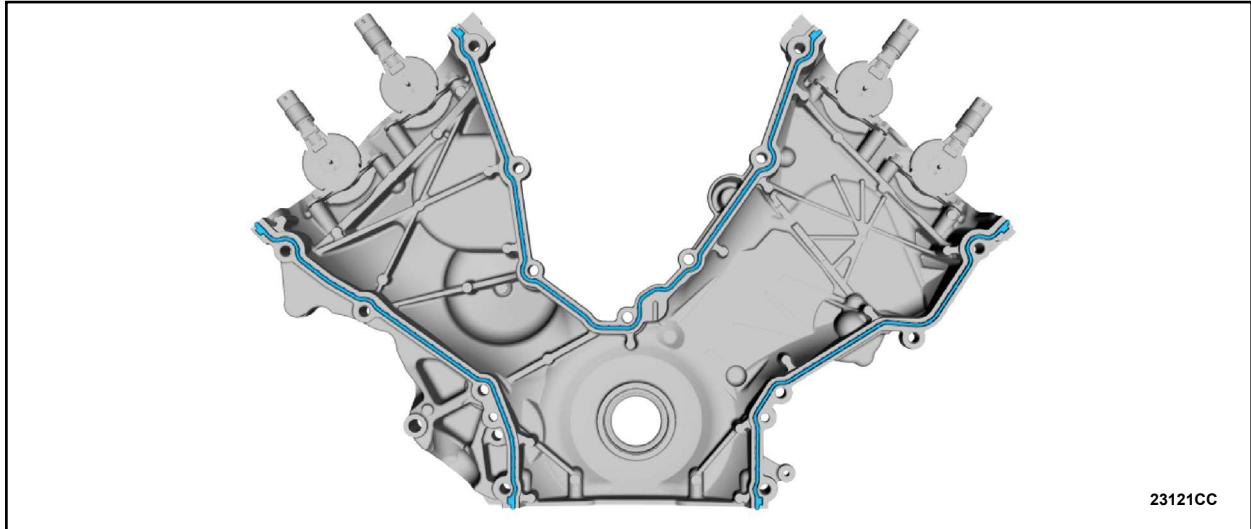


FIGURE 38



NOTICE: The Variable Camshaft Timing (VCT) variable force solenoid pins must be fully depressed to avoid interference with the VCT valve tips when installing the engine front cover. Failure to follow these instructions can result in damage to the engine.

NOTE: RH shown, LH similar

22. Fully depress the VCT variable force solenoid pins. See Figure 39.

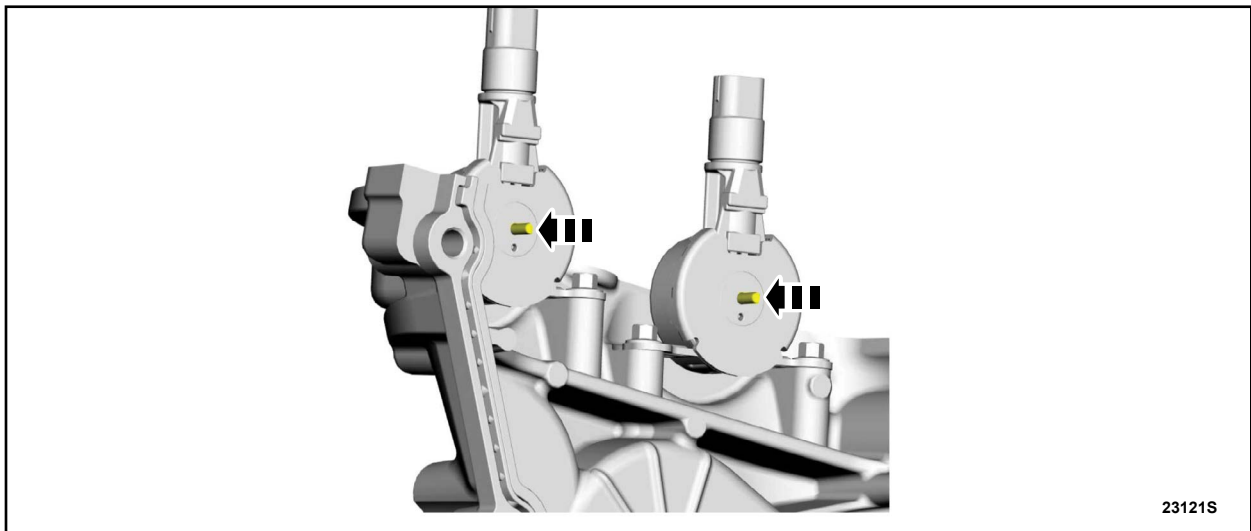


FIGURE 39





NOTICE: The *new* engine front cover must be installed and all fasteners final tightened within 5 minutes of applying the sealer. If this cannot be accomplished, install the *new* engine front cover and tighten fasteners 6, 7, 8, 9, 10 and 11 to 71 lb-in (8 Nm) within 5 minutes of applying the sealer. All of the fasteners must then be final tightened within 1 hour of applying the sealer. If this time limit is exceeded, all sealant must be removed and the sealing area cleaned. Failure to follow this procedure can cause future oil leakage

23. Using Motorcraft® Silicone Gasket and Sealant / TA-30 (WSE-M4G323-A4) apply 0.59 in (15 mm) diameter drops of silicone gasket and sealant to the cylinder head-to-cylinder block joints. See Figure 40.

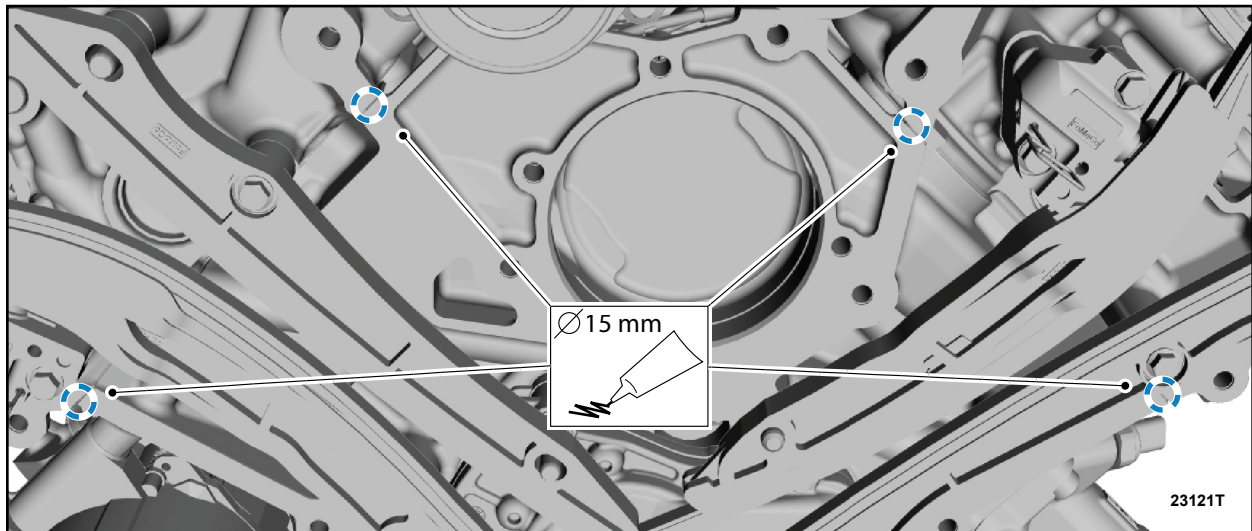


FIGURE 40



24. Install the *new* engine front cover and the fasteners. See Figure 41.

- Torque: Stage 1: Fasteners 1-15: 25 Nm (18 lb.ft).
- Torque: Stage 2: Fasteners 16-19: 10 Nm (89 lb.in).
- Torque: Stage 3: Fasteners 1-15: 60°.
- Torque: Stage 4: Fasteners 16-19: 45°.

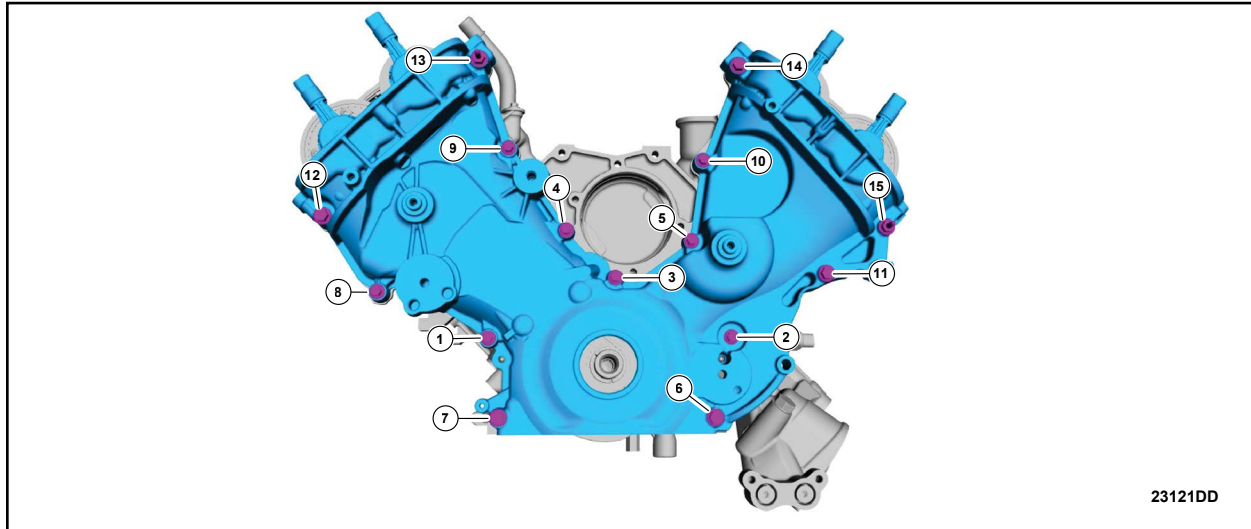


FIGURE 41

25. Install the four oil pan to engine front cover fasteners. See Figure 42.

- Torque: Stage 1: 10 Nm (89 lb.in).
- Torque: Stage 2: 45°

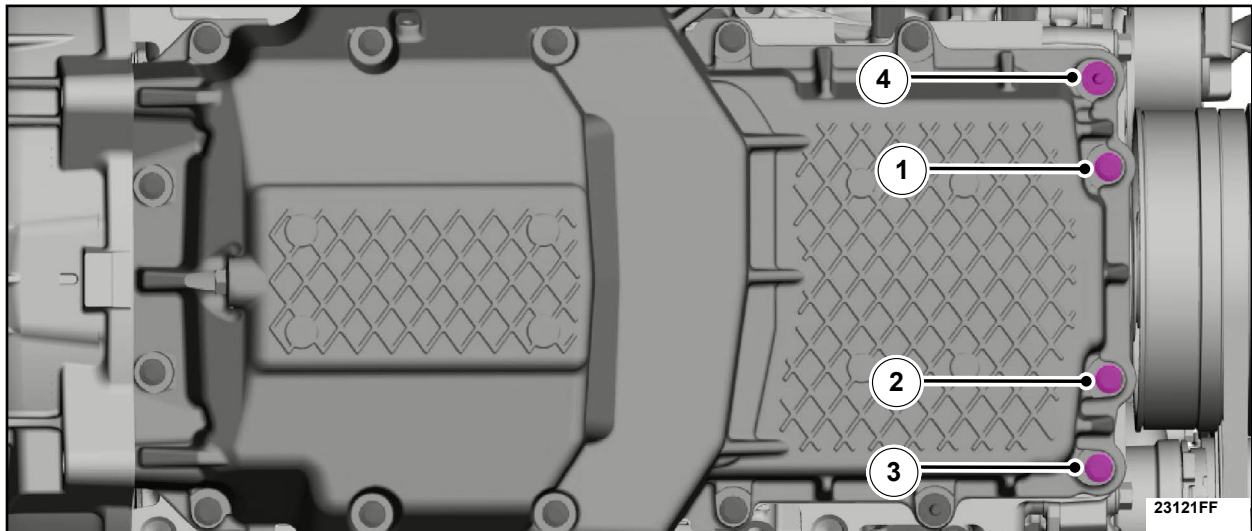


FIGURE 42



26. Attach the wiring harness retainers, connect the wiring harness electrical connectors, attach the wiring harness bracket to the oil pan stud bolt, install the nut, install the ground cable and the nut.
See Figure 43.

- Torque: Oil pan nut: 14 Nm (124 lb.in).
- Torque: Ground cable nut: 48 Nm (35 lb.ft).

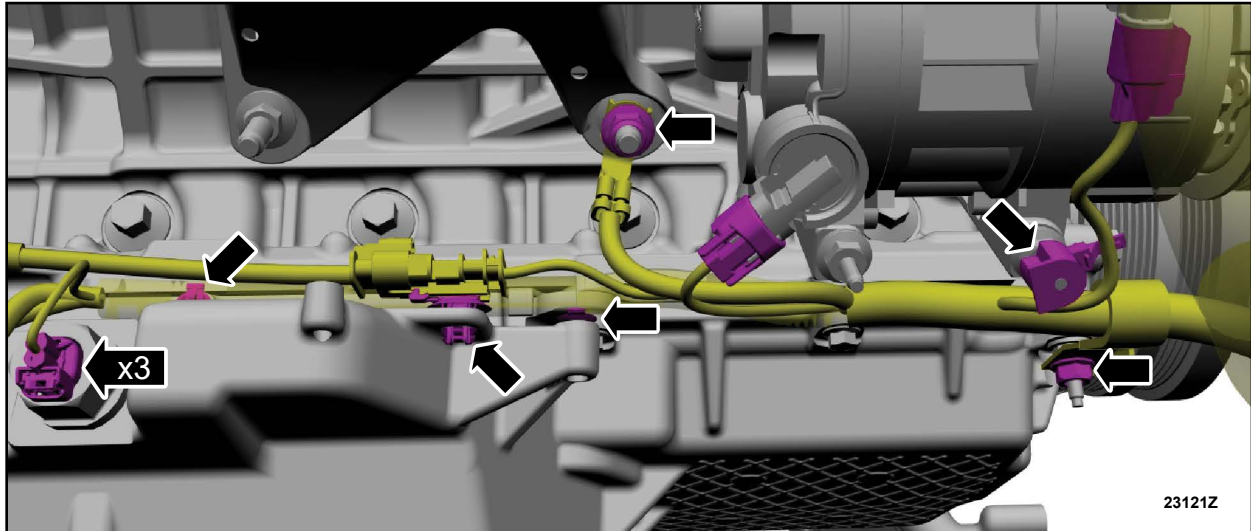


FIGURE 43

27. Install the generator and the fasteners. See Figure 44.

- Torque: 48 Nm (35 ft.in).

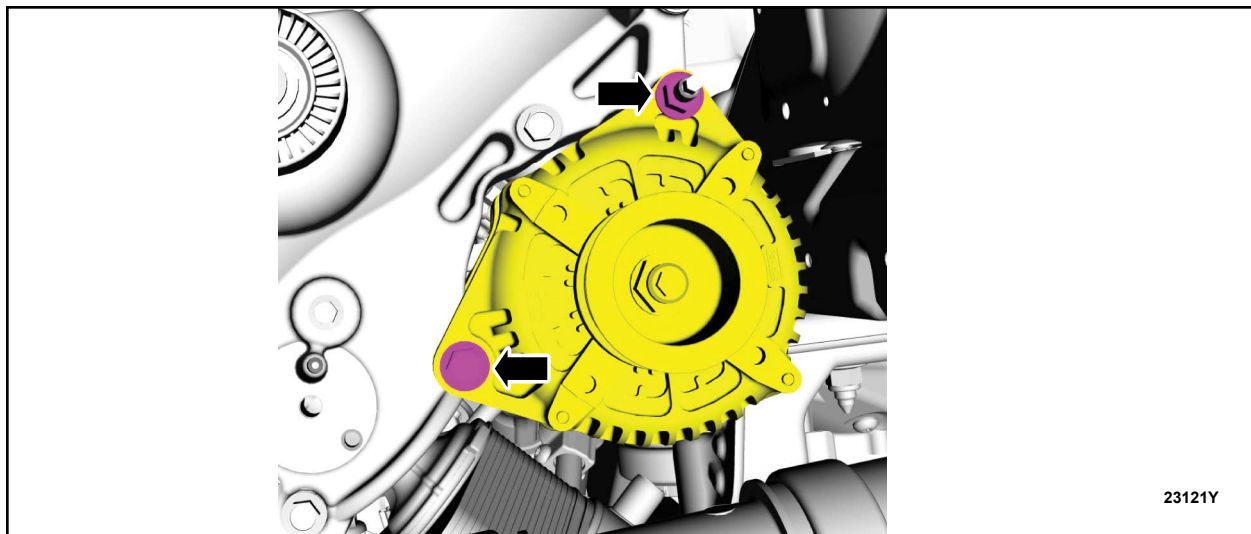


FIGURE 44



28. Position back the coolant hoses See Figure 45.

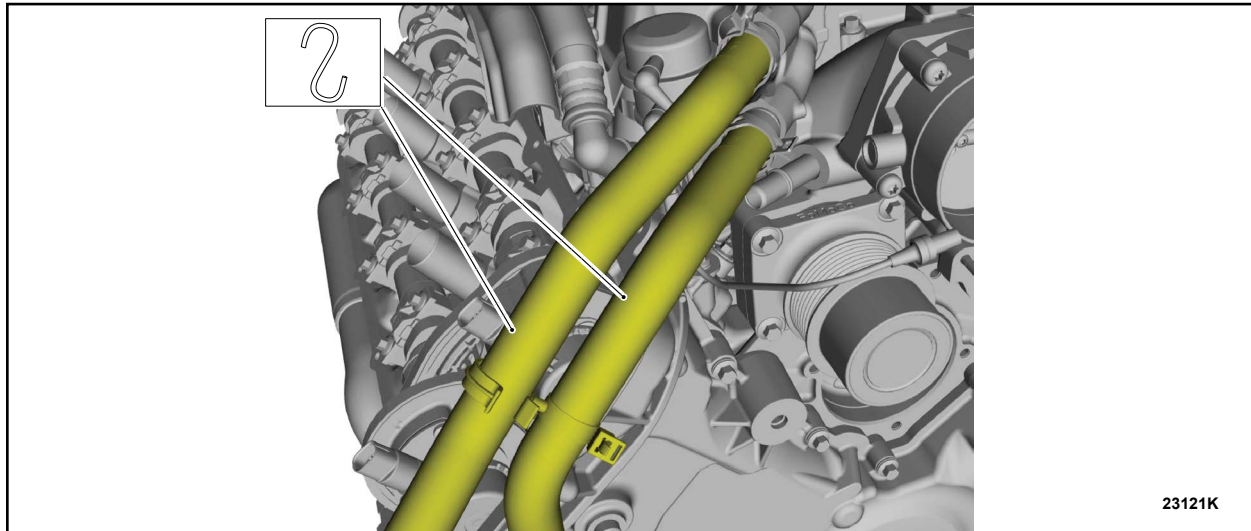


FIGURE 45

29. Attach the wiring harness retainers and install the ground wire and nut. See Figure 46.

• Torque: 10 Nm (89 lb.in).

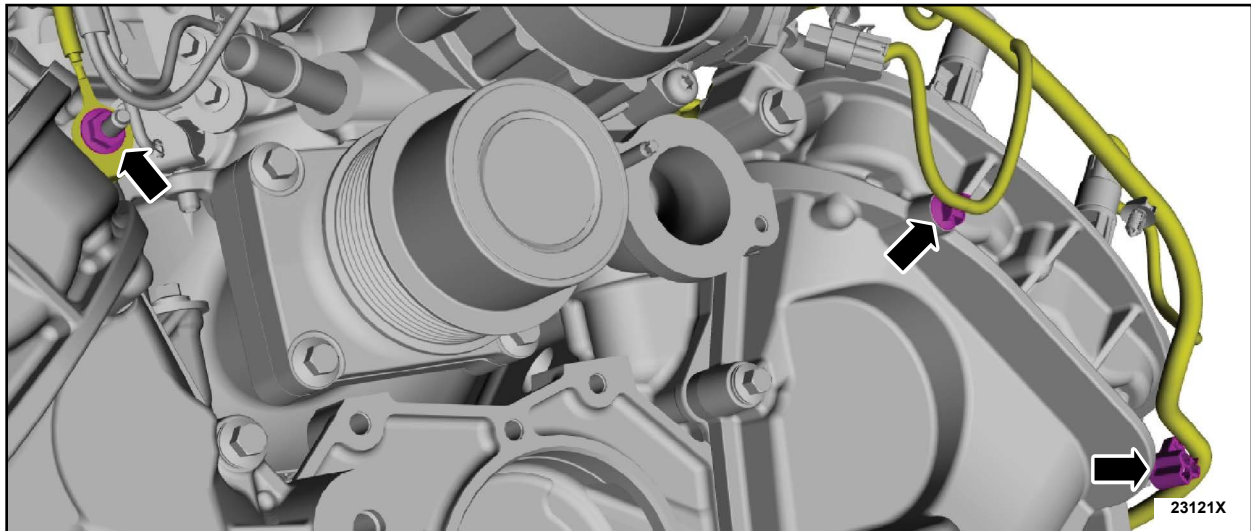


FIGURE 46

30. Install the *new* Crankshaft Front Seal. Follow the WSM procedures in Section 303-01C.

31. Install the Accessory Drive Idler Pulley. Follow the WSM procedures in Section 303-05C.

32. Install the Accessory Drive Belt Tensioner. Follow the WSM procedures in Section 303-05C.

33. Install the Supercharger Belt Idler Pulleys. Follow the WSM procedures in Section 303-05C.

34. Install the Supercharger Belt Tensioner. Follow the WSM procedures in Section 303-05C.



35. Install the Coolant Pump. Follow the WSM procedures in Section 303-03C.
36. Install the LH valve cover. Follow the WSM procedures in Section 303-01C.
37. Install the RH valve cover. Follow the WSM procedures in Section 303-01C.
38. Install the Air Cleaner. Follow the WSM procedures in Section 303-12C.
39. Install the Degas Bottle. Follow the WSM procedures in Section 303-03C.
40. Replace the oil filter and fill the engine with clean engine oil. Follow the WSM procedures in Section 303-01C.
41. Connect the battery positive and ground cables. Follow the WSM procedures in Section 414-01.
42. Pressurize the fuel system. Follow the WSM procedures in Section 303-00C.
43. Fill and bleed the engine cooling system. Follow the WSM procedures in Section 303-03C.
44. Use the PCM Misfire Monitor Profile Correction routine in the diagnostic scan tool.
45. Road test the vehicle.

IMPORTANT NOTE: Federal law prohibits selling motor vehicle parts or components that are under safety, compliance, or emissions recall. Unless a part is requested to be returned to Ford, all parts replaced under this FSA must be scrapped in accordance with all applicable local, state and federal environmental protection and hazardous material regulations. Refer to the Parts Retention, Return, & Scrapping section of the FSA dealer bulletin for further information.





Ford Motor Company
Ford Customer Service Division
P. O. Box 1904
Dearborn, Michigan 48121

September 2023

Customer Satisfaction Program(s): 23B17, 23B18, 23B19, 23B20, 23B25

Mr. John Sample
123 Main Street
Anywhere, USA 12345

Your Vehicle Identification Number (VIN): 12345678901234567

At Ford Motor Company, we are committed not only to building high-quality, dependable products but also to building a community of happy, satisfied customers. To demonstrate that commitment, we are providing one or more a no-charge Customer Satisfaction Program(s) for your vehicle with the VIN shown above.

Why are you receiving this notice? Your vehicle may have one or more customer satisfaction program(s) open.

What is the effect? Depending on which program(s) apply, the effect on your vehicle may include oil/coolant leaks, unwanted noise from the front end and/or unwanted noise from underneath the vehicle.
To find the specific program(s) information for your vehicle, you can check service section of your FordPass app, visit the website below, or use the QR code: <https://www.ford.com/support/recalls>



What will Ford and your dealer do? In the interest of customer satisfaction, Ford Motor Company has authorized your dealer to make repairs to your vehicle following the instructions accompanying each applicable customer satisfaction program(s). Any required repairs will be made free of charge (parts and labor) under the terms of this program(s).

Any applicable program(s) related to this notification will be in effect until September 30, 2024 regardless of mileage. Coverage is automatically transferred to subsequent owners.

How long will it take? The time required to repair your vehicle will vary depending on the program(s) open on your vehicle.

What should you do? Please call your dealer without delay to determine the applicable customer satisfaction program(s) on your vehicle and to schedule a service appointment for the repairs. Provide the dealer with your VIN, which is printed near your name at the beginning of this letter, to inquire about the open program(s).

If you do not already have a servicing dealer, you can access [ford.com/support](https://www.ford.com/support) for dealer addresses, maps, and driving instructions.

Ford Motor Company wants you to have these service actions completed on your vehicle. The vehicle owner is responsible for making arrangements to have the work completed. Ford Motor Company can deny coverage for any vehicle damage that may result from the failure to have the actions performed on a timely basis. Therefore, please have the service actions performed as soon as possible.

NOTE: You can receive information about Recalls and Customer Satisfaction Program(s) through our FordPass App. The app can be downloaded through the App Store or Google Play. In addition, there are other features such as reserving parking in certain locations and controlling certain functions on your vehicle (lock or unlock doors, remote start) if it is equipped to allow control.

Do you need a rental vehicle? If your dealer determines that the repairs will require your vehicle be kept overnight, your dealer is authorized to provide a rental vehicle for your

personal transportation at no charge (except for fuel, insurance, and tax) while your vehicle is at the dealership for repairs. Please see your dealer for guidelines and limitations.

What if you no longer own this vehicle?

If you no longer own this vehicle and have an address for the current owner, please forward this letter to the new owner.

You received this notice because our records, which are based primarily on state registration and title data, indicate that you are the current owner.

Can we assist you further?

If you have difficulties getting your vehicle repaired promptly and without charge, please contact your dealership's Service Manager for assistance.

RETAIL OWNERS: If you have questions or concerns, please contact our **Ford Customer Relationship Center at 1-866-436-7332** and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is ford.com/support.

For the hearing impaired call 1-800-232-5952 (TDD). Representatives are available Monday through Friday: 8:00 AM – 8:00 PM (Eastern Time).

FLEET OWNERS: If you have questions or concerns, please contact our **Ford Pro Contact Center at 1-800-34-FLEET**, choose Option #1, and one of our representatives will be happy to assist you. If you wish to contact us through the Internet, our address is fleet.ford.com.

Representatives are available Monday through Friday: 7:00 AM – 11:00 PM and Saturday 7:00 AM – 5:00 PM (Eastern Time).

Thank you for your attention to this important matter.

Ford Customer Service Division