

Safety Recall: 2018–19 Odyssey Connecting Rod Bearing

AFFECTED VEHICLES

Year	Model	Trim Level	VIN Range
2018–19	Odyssey	ALL	Check the iN VIN status for eligibility.

BACKGROUND

On November 9th, 2023, Honda announced a **STOP SALE** and **safety recall** for a certain number of 2018–19 Odyssey units. These vehicles may have engines containing internal damage at the connecting rod bearings, possibly leading to engine failure. If an engine fails, the vehicle may lose motive power, increasing the risk of crash, fire and resulting injury.

During engine manufacturing, some crankshafts may have been built with improper connecting rod journal dimensions, resulting in increased friction between the journals and their bearings. This increased friction could lead to accelerated engine deterioration and possible failure due to a lack of lubrication and excessive heat.

If this bulletin appears during an iN VIN status inquiry, the vehicle is subject to a **safety recall**. Any affected vehicles in your dealer inventory are on **STOP SALE** until further notice. Refrain from calling Tech Line for updates.

CUSTOMER NOTIFICATION

Owners of the affected vehicles have been sent a notification of this campaign. They were informed that due to a limited supply of parts (at this time) Honda is prioritizing the repair of customer vehicles experiencing symptoms related to this recall.

When **adequate replacement parts** become available, Honda will send a follow-up letter to customers instructing them to schedule an appointment for all vehicles affected by this recall. If a customer experiences the known symptoms associated with this **safety recall** (see IMPORTANT NOTICE), they are instructed to contact their local Honda dealer for the repair.

For any questions or concerns customers may have, you may have them contact American Honda's Customer Support & Campaign Center at **1-888-234-2138**.

The following suggested text should be included on any repair order for an already sold affected vehicle that comes in for service. This information should be printed out completely any time service is conducted on an affected vehicle, and the recall repair has not yet been completed. Depending on parts availability, the normal procedures under *Service Operations Manual* (SOM) 7.2.1 will apply for this recall.

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

Suggested Verbiage to be Included on the Repair Order

Customer was advised that:

The vehicle is subject to a recall affecting the connecting rod bearings. The parts necessary to complete the recall repair are currently limited. Vehicles with eligible VINs and the following symptom: an abnormal engine knocking noise or an abnormal engine knocking noise followed by a loss of power are eligible for immediate inspection. Once parts repair kits are available, if the vehicle has not been repaired, the registered owner of the vehicle will receive a notice to bring the vehicle in for a repair, regardless of symptom.

IMPORTANT NOTICE

Due to a limited parts inventory to complete the necessary repairs, dealers must prioritize which vehicles are inspected and repaired. A customer experiencing a symptom of an engine rod knock or rod knock followed by a stall when driving should be inspected. Otherwise, advise the customer that parts are limited as described in the CUSTOMER NOTIFICATION section.

The self-study training module, *ENC65 Multiple Connecting Rod Repair with V-SMART*, is available on the Online University. Make sure to complete the module before starting the inspection procedure.

CORRECTIVE ACTION

Do an iN **VIN** status inquiry to make sure the vehicle is shown as eligible for an inspection. Removal of the connecting rod bearings and taking/sending photos via V-SMART for inspection by the Bearing Inspection Inquiry Team.

The technician will then create a Bearing Inspection Inquiry through iN and will receive a reference case number. This number must be used when contacting the Bearing Inspection Inquiry Team. This team will conduct a judgment and recommend the appropriate repair for the technician to complete.

In the event that parts are not available, the **STOP SALE** remains in effect for that vehicle. To see if a vehicle in inventory is affected by this safety recall, do a **VIN** status inquiry before selling it. Some vehicles affected by this campaign may be in your new or used vehicle inventory.

PARTS INFORMATION

Repair parts will be automatically allocated based on repair direction. Carefully review the **Repair Type** instructions emailed *after* submission of the inspection results to the Bearing Inspection Inquiry team.

REQUIRED MATERIALS

Part Name	Part Number	Quantity
0W-20 Full Synthetic Motor Oil	-	5.4 Qt.
Hondabond HT Silicone Gasket	08718-0004	1

TOOL INFORMATION

Tool Name	Tool Number	Quantity Per Repair
V-SMART Phone	CDW5001003PK	1
Bearing Photo Box, [BOX, BEARING PHOTO]	07AAK-5J2A200	1
M8 Rod Holder, [HOLDER, M8 ROD]	07AAB-5G0A100	1
Crank Angle Gauge, [GAUGE, CRANK ANGLE]	07AAJ-5G0A100	1
Piston Stopper, [STOPPER, PISTON]	07AAB-5G0A200	4 per vehicle
Large Zip Tie	Commercially Available	2
Protector Radiator [PROTECTOR, RADIATOR]	07AAK-5A2A100	1

NOTE:

- These tools are in the process of being auto-shipped to your dealer. There is no need to order at this time as quantities are limited.
- If you **do not** receive tools by March 12th, please contact the Special Tools Hotline **(833) 949-4672** and/or email special_tools@ahm.honda.com for information.

WARRANTY CLAIM INFORMATION

Important Notice: Warranty claim information extends across multiple pages; please select the correct table.

INSPECTION A, plus repair.

NOTE:

- For inspections that resulted in a repair, you will need to create **two repair lines** in the repair order: **one for inspection** and **one for repair**.
- Both repair lines must be done for completion of **this claim**.
- Enter the **bearing part number(s)** (provided by the Bearing Inquiry Team) under template D.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1115G5	Inspection A - connecting rod bearings (Includes photos)	1.2 hr	6JA00	YHR00	A24003A	13010-R9P-A00
1111ER	Replace connecting rod bearings (includes photos)	1.8 hr	6KC00	AH500	A24003D	13321-5J6-A01

INSPECTION B, plus repair.

NOTE:

- For inspections that resulted in a repair, you will need to create **two repair lines** in the repair order: **one for inspection** and **one for repair**.
- Both repair lines must be done for completion of **this claim**.
- Enter the **bearing part number(s)** (provided by the Bearing Inquiry Team) under template E.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1115G6	Inspection B -main cap bearings - (Includes connecting rod bearings & photos)	2.4 hr	6JA00	YHR00	A24003B	13050-R9P-A00
1111FM	Replace connecting rod bearings (includes photos)	1.8 hr	6KC00	AH500	A24003E	13341-R9P-A01

INSPECTION A, further repair pending.

NOTE:

- For inspections that result in other than a connecting rod bearing replacement, you will need to create **one** repair line in the repair order and **not close out** the repair order until the repair is fully complete.
- A further repair will be required for completion of **this recall** when parts become available.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1115G5	Inspection A – connecting rod bearings (Includes photos)	1.2 hr	6JA00	YHR00	A24003A	13010-R9P-A00

INSPECTION B, further repair pending.

NOTE:

- For inspections that result in other than a connecting rod bearing replacement, you will need to create **one** repair line in the repair order and **not close out** the repair order until the repair is fully complete.
- A further repair will be required for completion of **this recall** when parts become available.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1115G6	Inspection B -main cap bearings - (Includes connecting rod bearings & photos)	2.4 hr	6JA00	YHR00	A24003B	13050-R9P-A00

VIN and Engine Number Identification Query through V-SMART–No Repair.

NOTE:

- No further warranty claim required; campaign is considered closed by **engine number verification**.
- Use only this labor operation if the engine number identification query through V-SMART was done and resulted in "Engine *Not Affected*."
- **Do not** use this warranty table for either **Inspection A** or **Inspection B**.
- The Bearing Inspection Inquiry Team **must still** be contacted to complete a claim; See step 13 of the V-SMART ENGINE NUMBER VERIFICATION section for more details.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1115G2	Inspect VIN/EIN- Engine not affected (includes contacting the Bearing Inspection Inquiry Team)	0.3 hr	6KC00	AH500	A24003C	11200-5J6-A11

Skill Level: Repair Technician

NOTE: Repair will require a special code that has been emailed by the Bearing Inspection Inquiry Team.

CONTENT REFERENCE

Important Notice:

DO NOT contact Tech Line for any inquires to this safety recall. You must call the **Bearing Inspection Inquiry Team** at (800) 824-6632 (**Select Option #9**) for all inquiries and repair direction.

This information has been designed to work best when viewing through iN. It is **strongly suggested** (due to final page count and complexity) that the technician use iN to fully utilize this service bulletin's functions.

Furthermore, the technician is also advised to prepare their workstation for the tasks ahead. This includes: V-SMART phone fully charged, tools laid out, verify strong connection to Wi-Fi, and access to this service bulletin in its entirety via iN.

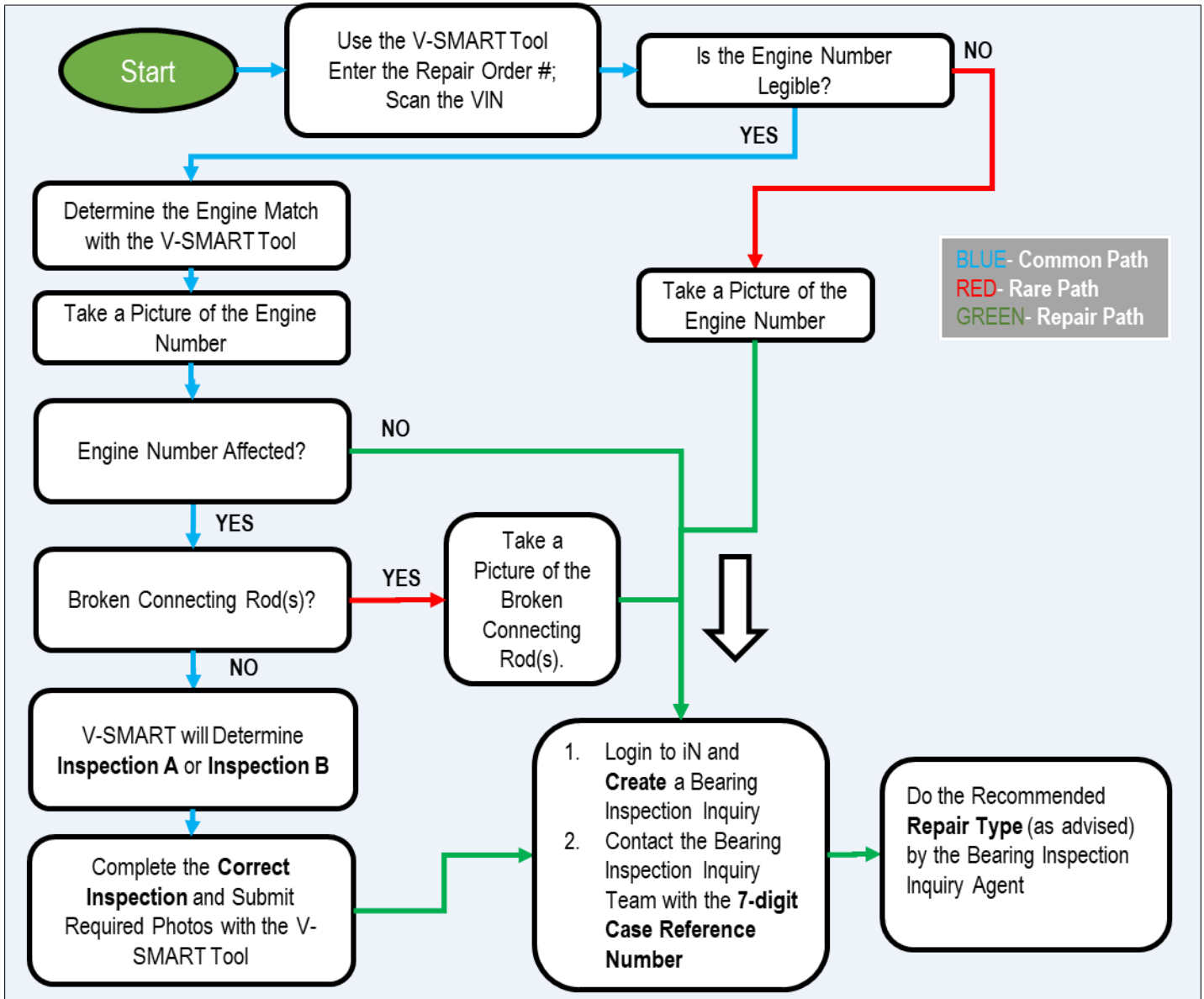


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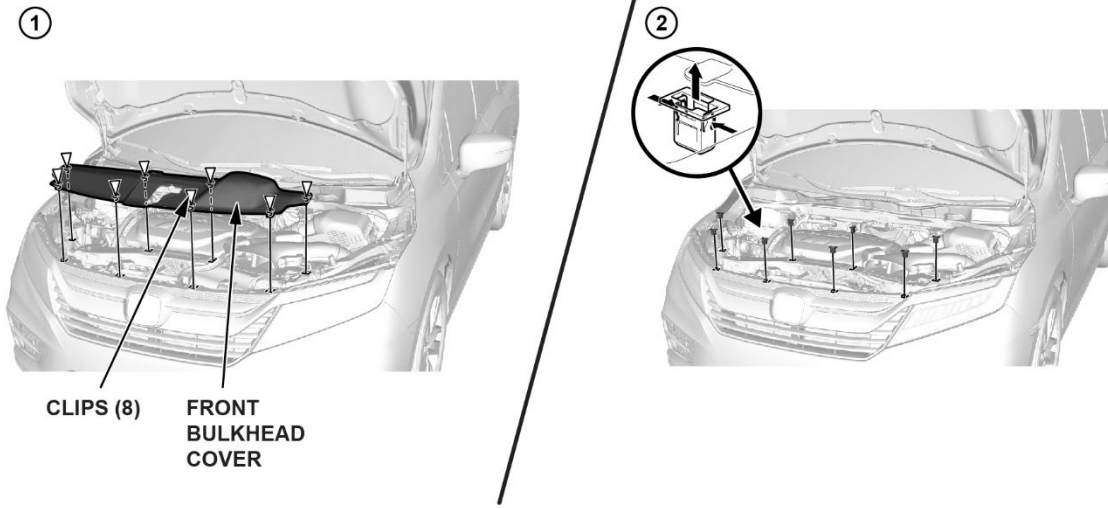
V-SMART ENGINE NUMBER VERIFICATION	7
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REPAIR #1 INSTALL RECOMMENDED BEARINGS	69

NOTE: **Click** on a section title to go there.

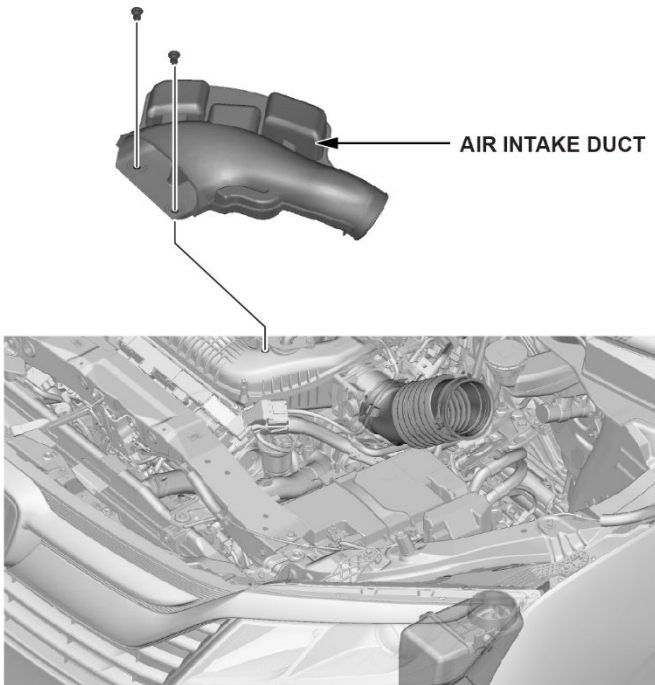
V-SMART ENGINE NUMBER VERIFICATION

NOTE: DO NOT contact Tech Line for any inquiries to this safety recall. You must call the **Bearing Inspection Inquiry Team** at (800) 824-6632 (**Select Option #9**) for all inquiries and repair direction.

1. Remove the front bulkhead cover.



2. Remove the air intake duct.



3. Login to V-SMART tool.

NOTE: Refer to the job aid, *Using V-SMART* for additional information and tips. Although the job aid is primarily intended to perform the airbag inflator recall, some information will still apply to this bulletin.

1. Dealer Number
2. Username (iN Login Credentials)
3. Password (iN Login Credentials)

ACURA V HONDA

Dealer No
Dealer No

Username
Username

Password
Password

Login

||| □ <

4. Select **Engine Bearing** from the campaign selection.

V SMART Campaign Selection

Passenger Inflator

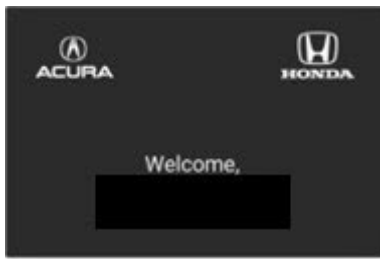
Driver Inflator

Driver Inflator Reinspection

Engine Bearing

ACURA Patent Pending American Honda Motor Co., Inc. © 2024 HONDA

5. Enter the repair order number (RO#).



Repair Order #

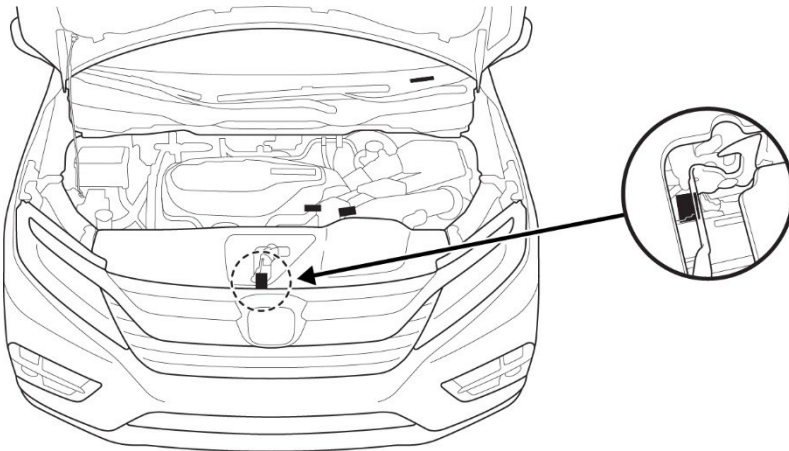


American Honda Motor Co., Inc. © 2024

6. Scan the VIN on the driver's door jamb.



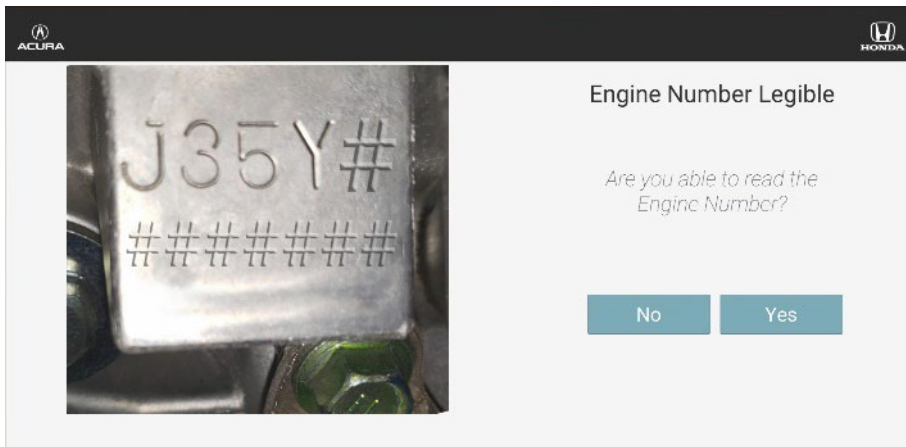
7. Locate the engine identification number.



8. Verify that the engine number is legible.

- **Yes**—Press **YES** and continue to the next step.
- **No**—Press **NO** and you will be prompted to clean the area, then take a photo.

NOTE: Proceed to step 13 as necessary for information on creating a Bearing Inspection Inquiry and contacting the Bearing Inspection Inquiry Team.

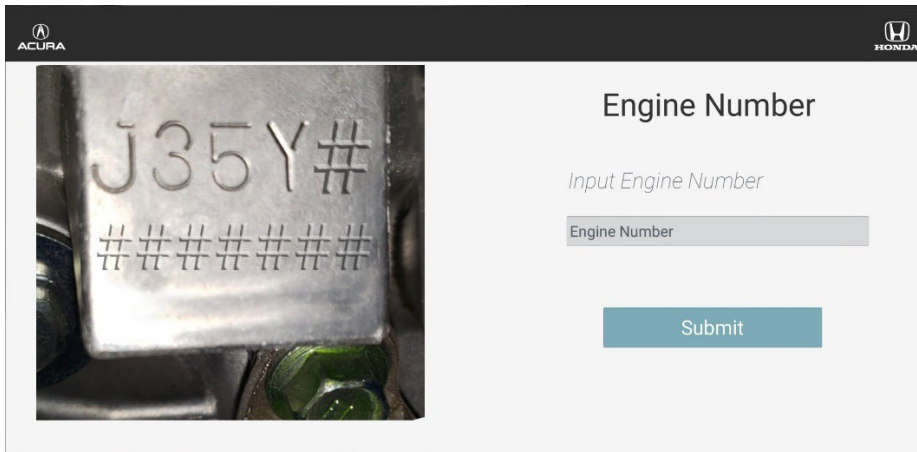


9. Does the engine identification number match?

- **Yes**—Press **YES** and continue to the next step.

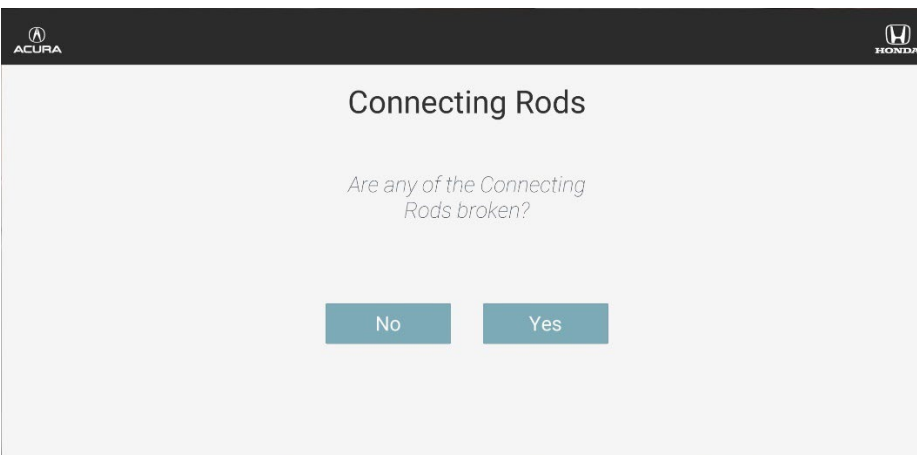


- **No**—Manually enter the 12-digit engine identification number into the application.
NOTE: Blank or incorrect numbers will not be accepted and rejected during the inquiry call.



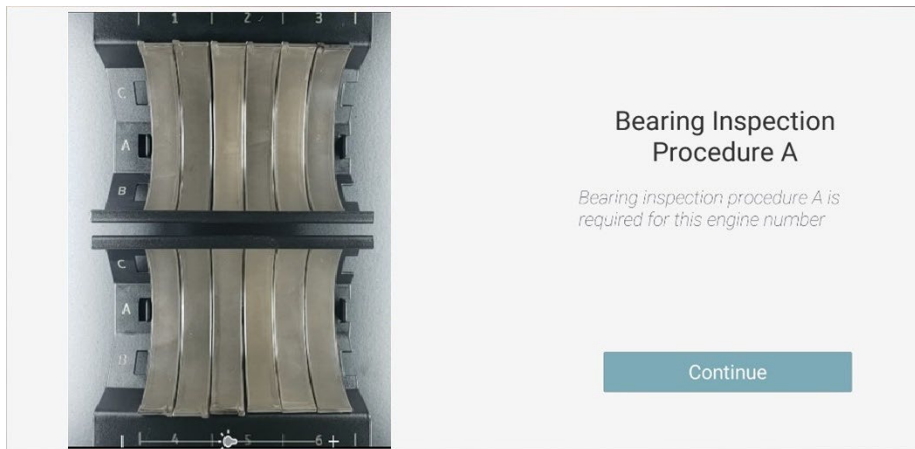
10. Answer the V-SMART tool's question: *Are any connecting rods broken?*

- **Yes**—Follow the application's instructions.
NOTE: Proceed to step 13 as necessary for information on creating a Bearing Inspection Inquiry and contacting the Bearing Inspection Inquiry Team.
- **No**—Press **NO** and continue to the next step in this bulletin.

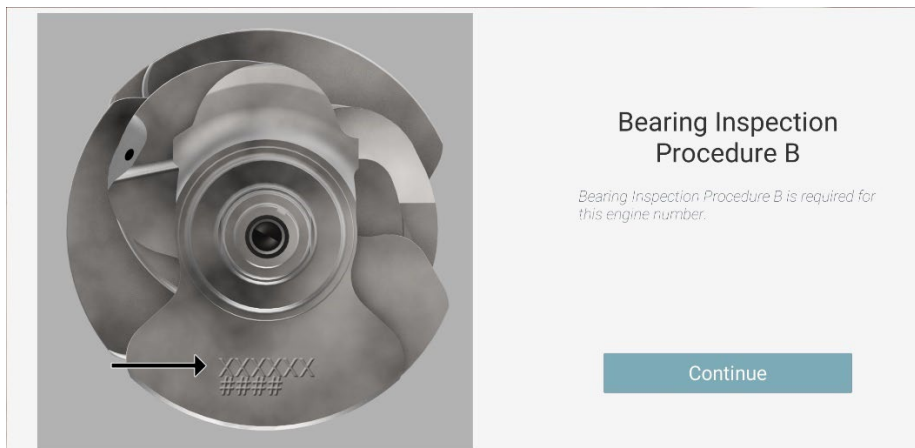


11. The V-SMART tool will direct you to either **INSPECTION A** or **INSPECTION B**.

- **INSPECTION A:** V-SMART Database contains engine build information.



- **INSPECTION B:** V-SMART Database does not contain engine build information.



12. Sign out of the V-SMART application.

NOTE: DO NOT contact Tech Line for any inquires to this safety recall. You must call the Bearing Inspection Inquiry Team at (800) 824-6632 (Select Option #9) for all inquiries and repair direction.

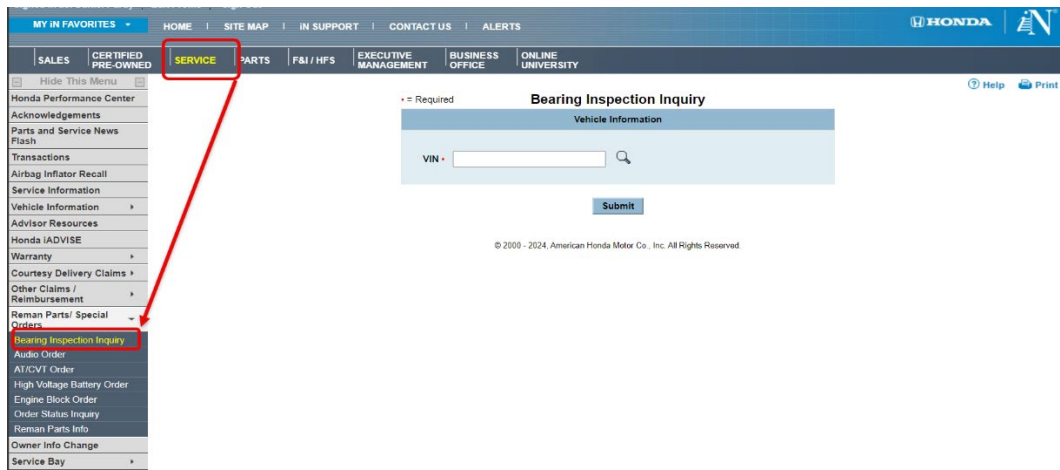
13. If advised by the V-SMART tool, proceed to either **INSPECTION A** or **INSPECTION B**. Otherwise, continue to the next step.

NOTE:

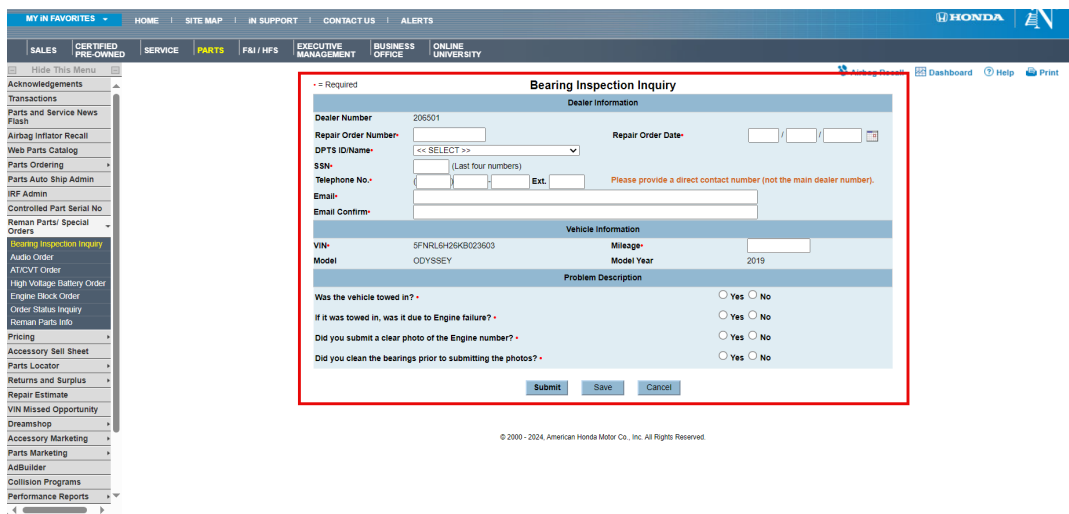
- Link to **INSPECTION A**, ([Click HERE](#))
- Link to **INSPECTION B**, ([Click HERE](#))
- Logging into the V-SMART application will always prompt the user to enter the RO# and scan/enter VIN.
- V-SMART Troubleshooting Hotline Number: **(800) 346-6327**.

14. Create a Bearing Inspection Inquiry.

1. Log into iN.
2. Select SERVICE > REMAN PARTS / SPECIAL ORDERS > BEARING INSPECTION INQUIRY
3. Select the BEARING INSPECTION INQUIRY.
4. Input the correct VIN.



5. Input all vehicle information to create a case.



6. A 7-digit case reference number will be generated.

NOTE: Note this number on the RO for future reference.

7. Call the **Bearing Inspection Inquiry Team** at **(800) 824-6632**. Press **9** to be routed to the correct department (**do not contact TECH LINE** for this). Give the answering agent the **7-digit reference number** for a repair direction.

NOTE:

- MAKING THE INCORRECT SELECTION WILL RESULT IN INCREASED WAIT TIMES.
- **DO NOT** contact Tech Line for any inquires to this safety recall. You must call the **Bearing Inspection Inquiry Team** at **(800) 824-6632 (Select Option #9)** for all inquiries and repair direction.

8. The bearing inspection agent will give the **Repair Direction**. You will receive instructions via email on the repair method that includes the unique warranty code and the bearing sizes with their specific locations, if applicable. Parts will be shipped to your dealership. Make sure to advise the parts department with a copy of the RO.

NOTE: Link to CONTENT REFERENCE, [\(Click HERE\)](#).

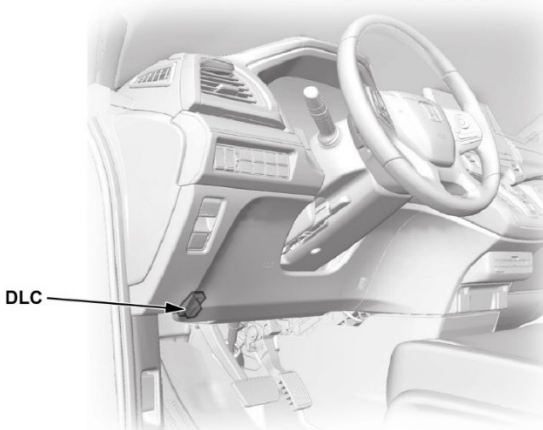
INSPECTION A

NOTE: DO NOT contact Tech Line for any inquires to this safety recall. You must call the Bearing Inspection Inquiry Team at (800) 824-6632 (**Select Option #9**) for all inquiries and repair direction.

1. Turn the steering wheel all the way to the right.
2. Relieve the fuel pressure.

With the i-HDS:

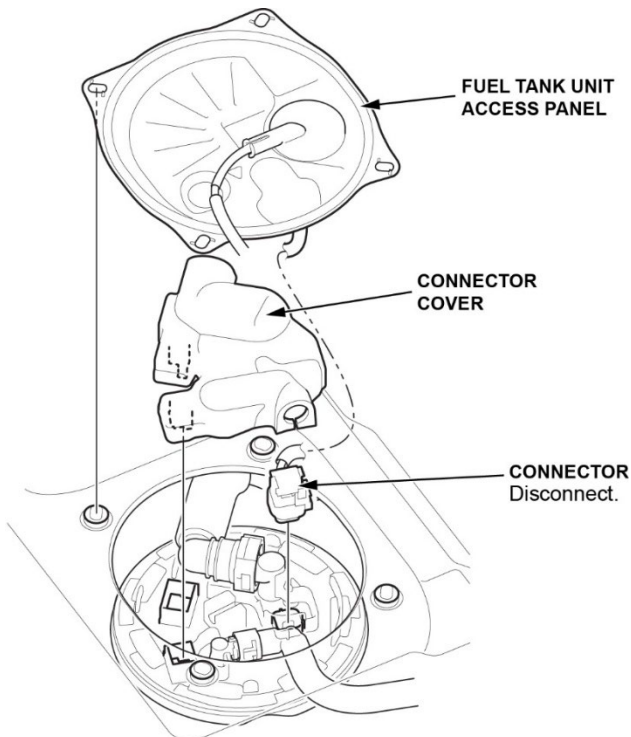
- Plug an interface tool into the DLC (located under the driver's side of the dashboard) and load i-HDS.



- Turn the vehicle to ON.
- Select the **PGM-FI** system on the i-HDS.
- Select the **FUEL PUMP OFF** from the **Inspection Menu** and follow the screen instructions.

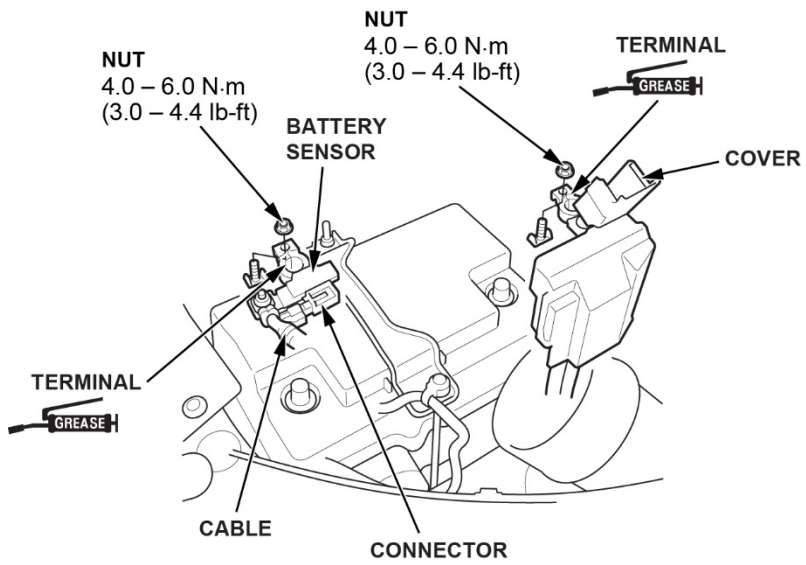
Without an i-HDS:

- Remove the fuel tank unit access panel and disconnect the connector from the fuel tank unit access panel.

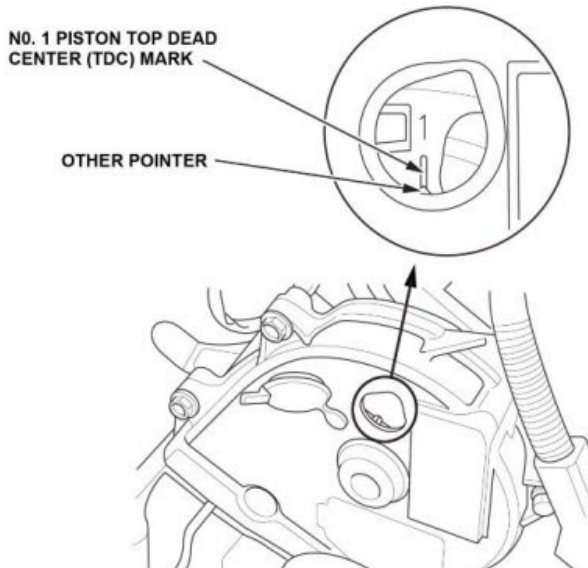


- Start the engine, and let it idle until it stalls.

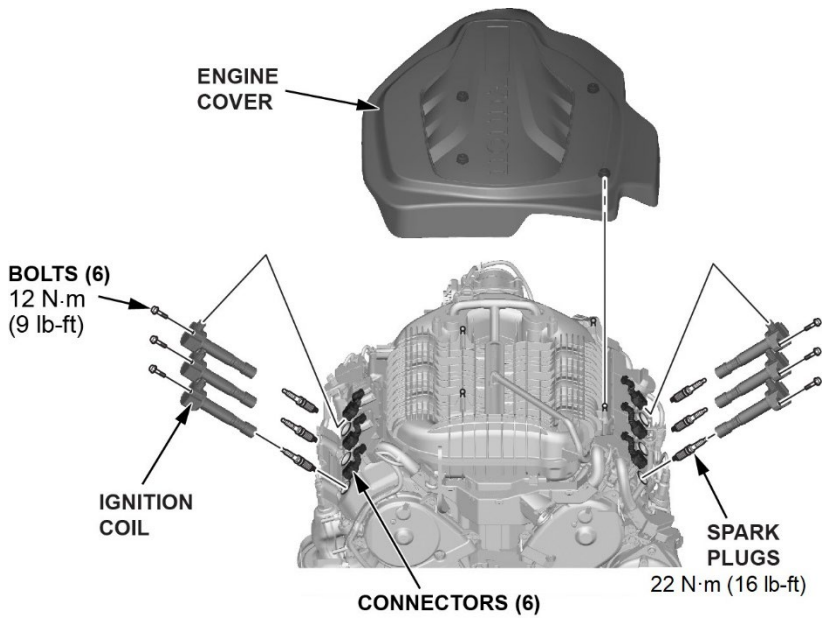
3. Disconnect the 12-volt battery.



4. Remove the engine oil dipstick.
5. Set the engine to TDC.

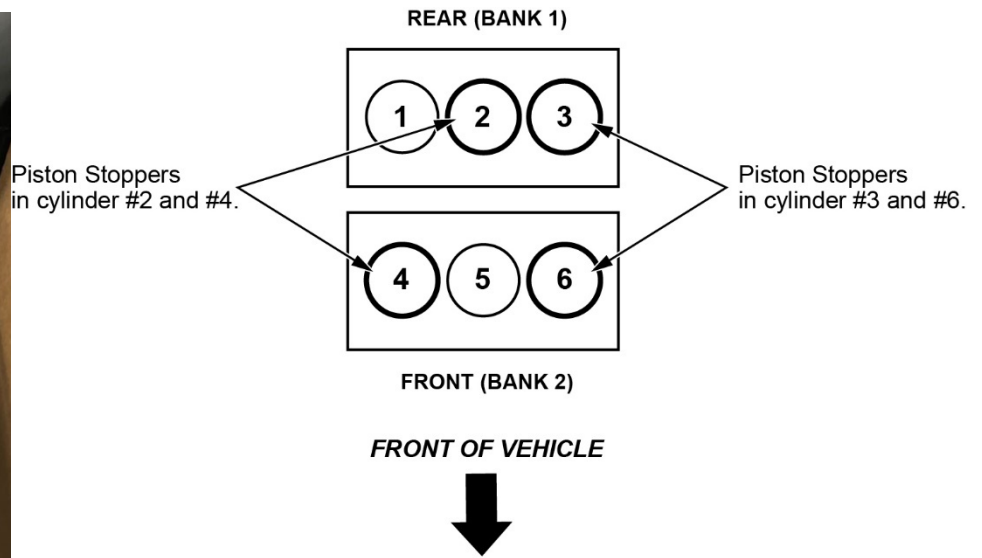


6. Remove the engine cover, the ignition coils, and spark plugs.



7. Install piston stoppers to **cylinder 2,3,4, and 6**.

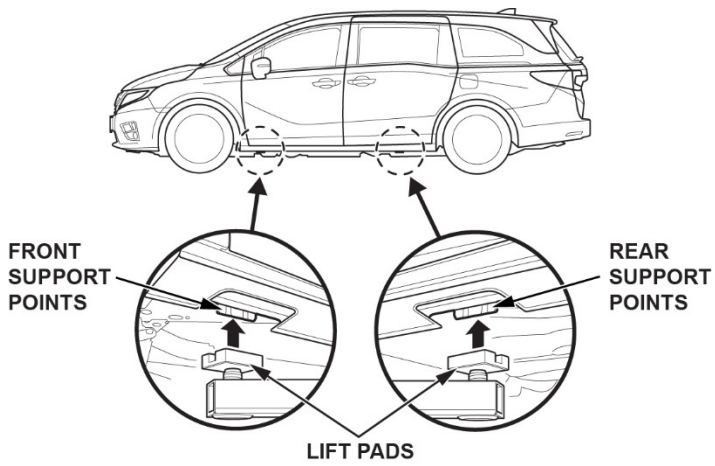
NOTE: Hand tighten only!



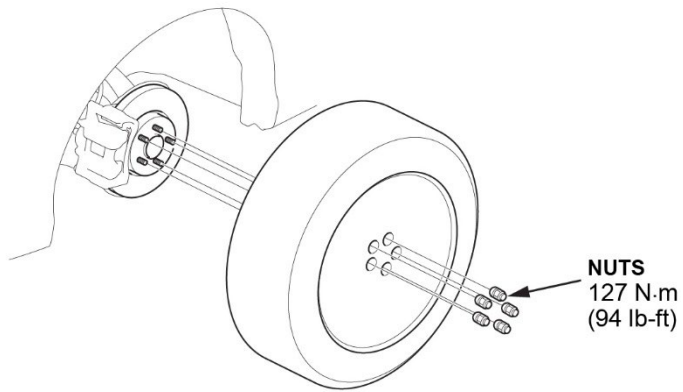
PISTON STOPPER
P/N 07AAB-5G0A200



8. Lift the vehicle to a good working height.



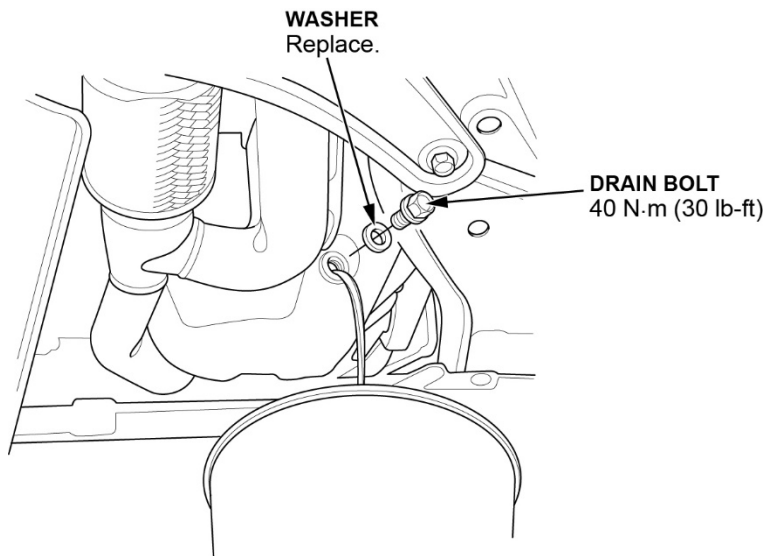
9. Remove the passenger side wheel.



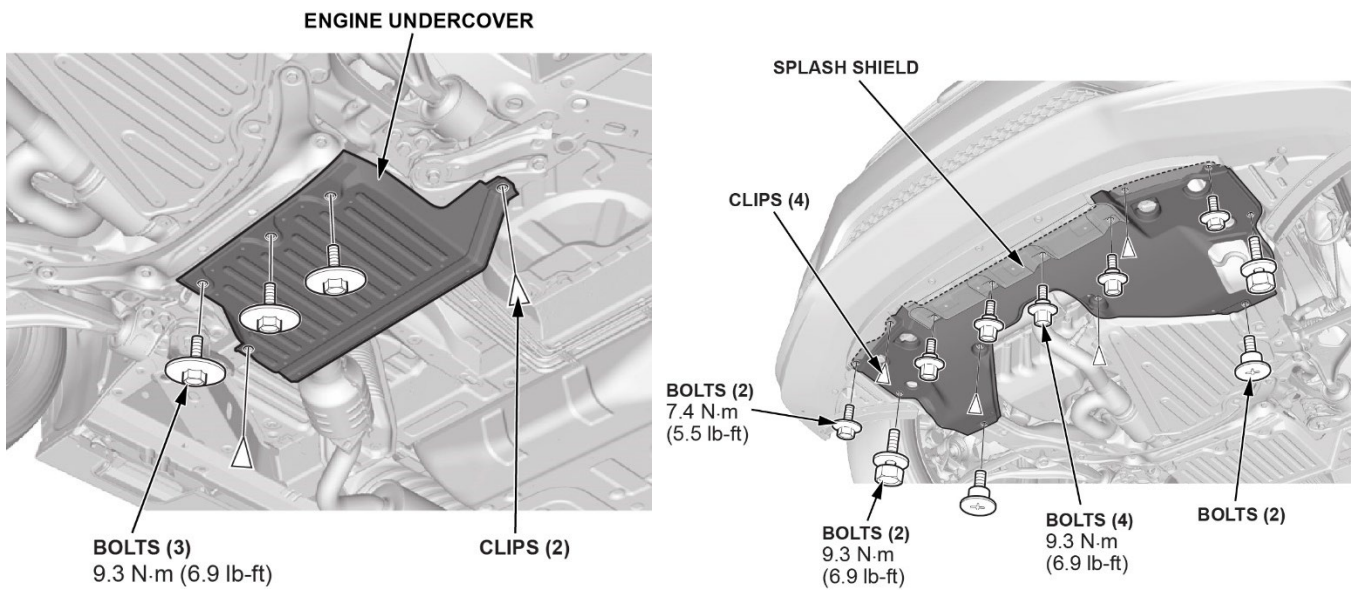
10. Pull back the fender liner to gain access to the crank pulley.



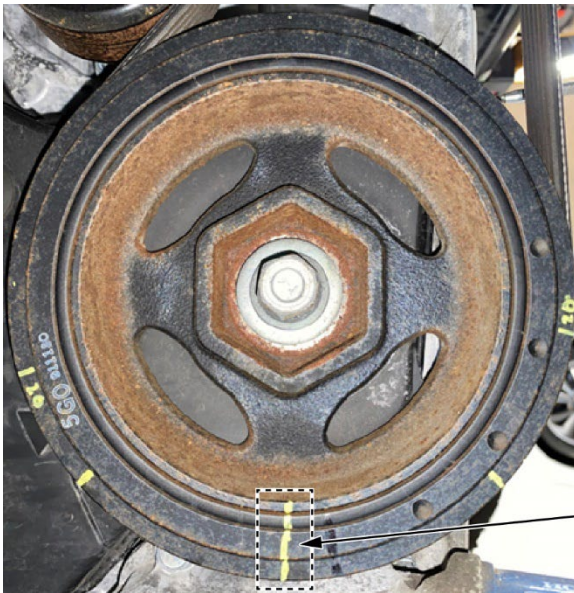
11. Drain the engine oil, **40 N·m (30 lb-ft)**.



12. Remove the engine undercover and the lower splash shield.



13. With the crankshaft at TDC, mark the crankshaft pulley with a vertical line at the 6 o'clock position.



CRANKSHAFT PULLEY
Mark with a vertical line
from the 6 o'clock position.

14. Attach the crank angle gauge to the crankshaft pulley with **position #1** correctly aligned at the 6 o'clock position, also the mark made in step 13.



Click here to view a video:

NOTE: The gauge has a magnetic reverse side that will hold onto the crankshaft pulley.



CRANK ANGLE GAUGE
P/N 07AAJ-5G0A100

15. Attach a large, commercially available zip tie to the subframe below the crankshaft pulley. The zip tie will be a **reference indicator** for a correct crank angle gauge position.

NOTE:

- Make sure it is pointing up at the 6 o'clock position on the pulley.
- The zip tie should extend roughly **8" to 12"** over the subframe.

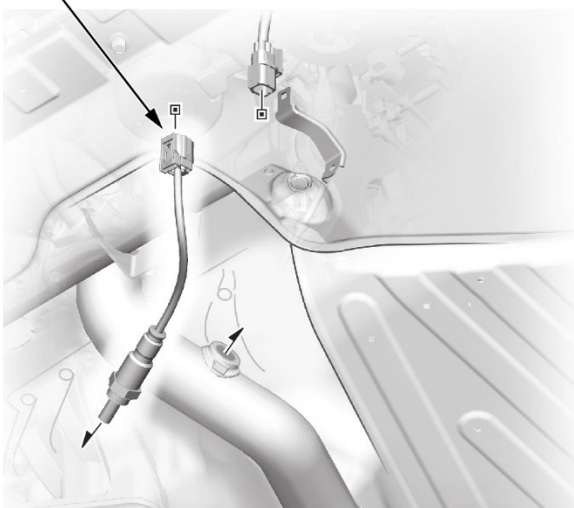


ZIP TIE
Attach a zip tie to the frame
and line up as shown.

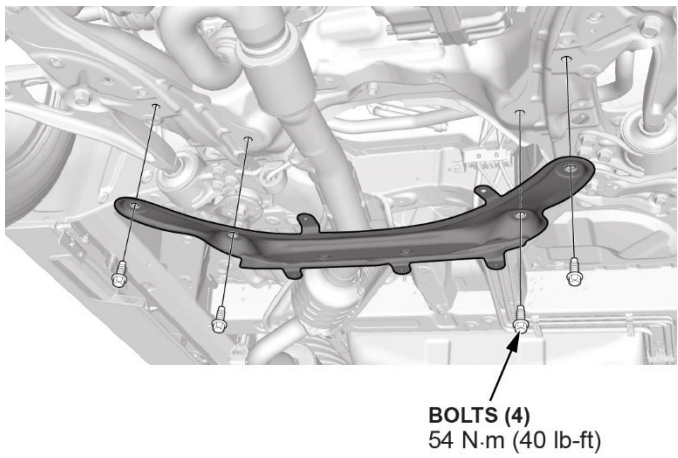
16. Unplug bank 2 oxygen sensor.

NOTE: Exhaust may be HOT.

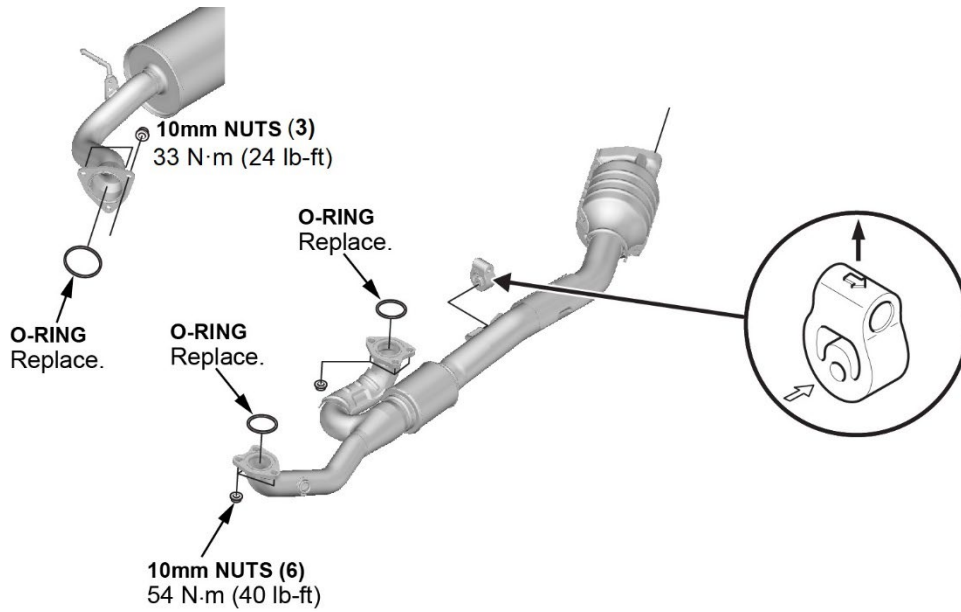
OXYGEN SENSOR
Unplug.



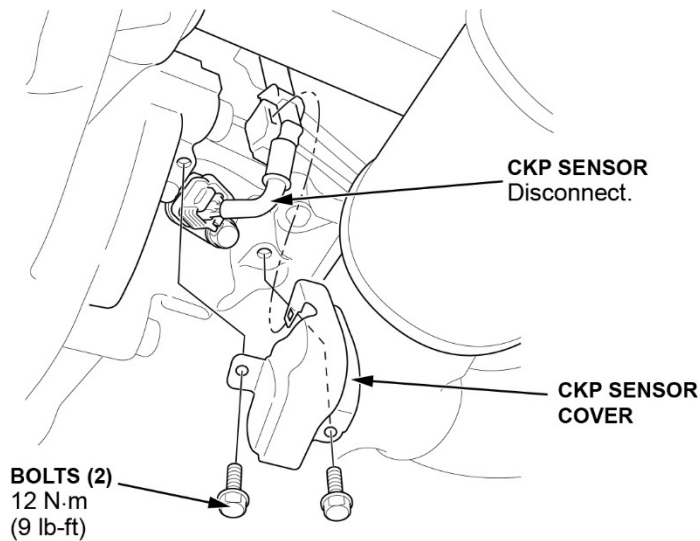
17. Remove the sub frame stiffener plate.



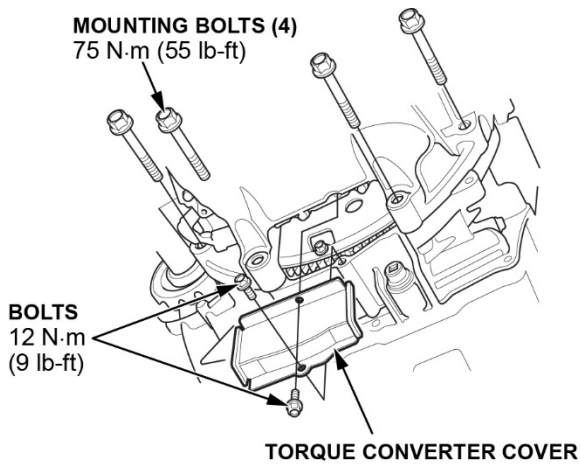
18. Remove the A-pipe.



19. Remove the CKP sensor cover and disconnect the CKP sensor.



20. Remove the torque converter cover and the four lower transmission mounting bolts.



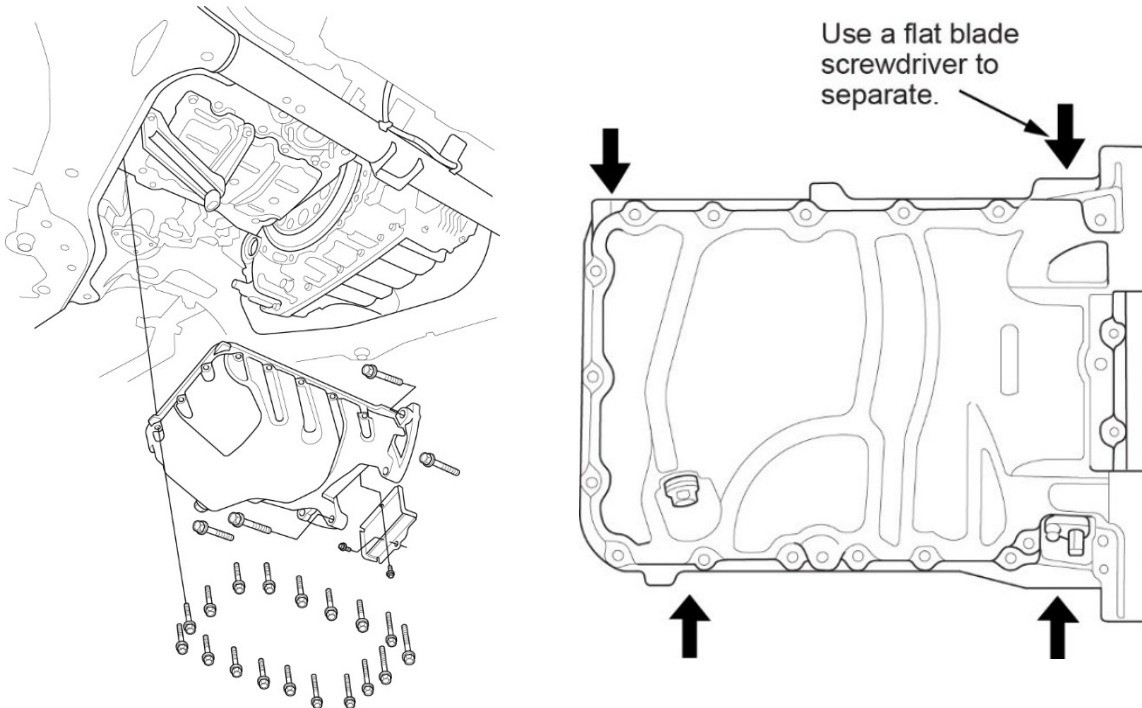
21. Remove the engine oil pan.

⚠ CAUTION

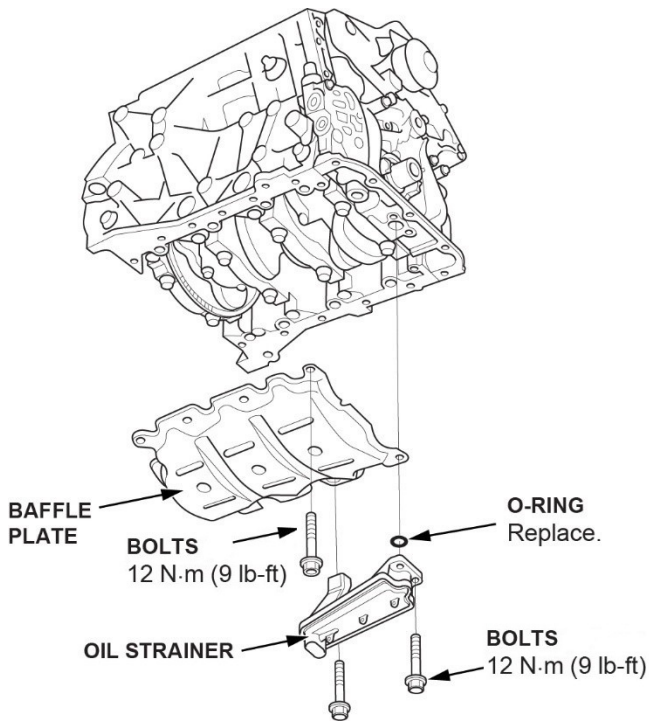
Hot engine oil may continue to drip from the engine which can cause burns or eye damage. Wear proper protective equipment and eyewear to avoid injury.

NOTE:

- Remove the bolts securing the oil pan.
- Use a flat blade screwdriver to separate the oil pan from the engine block.



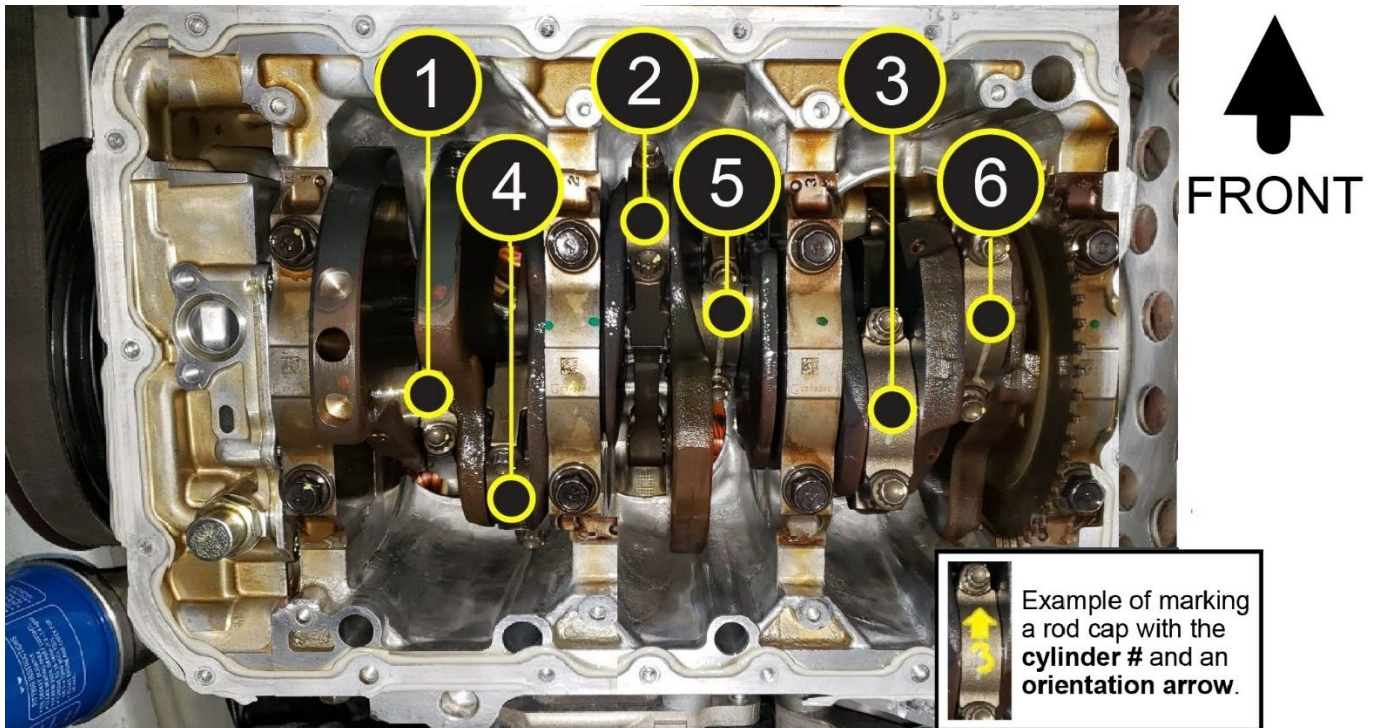
22. Remove the oil strainer and baffle plate.



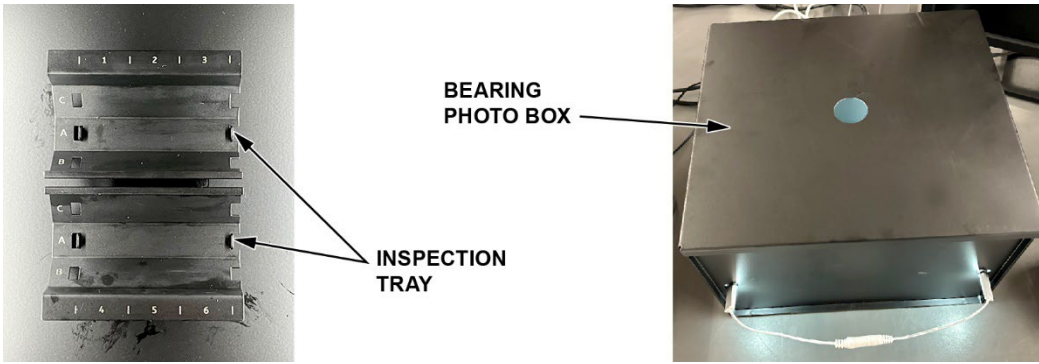
23. Clean and label each connecting rod cap with a paint marker (or otherwise suitable marking instrument) prior to removal. Make sure each rod cap has both the **cylinder #** and an **orientation arrow** pointing to the front of the vehicle.

NOTE:

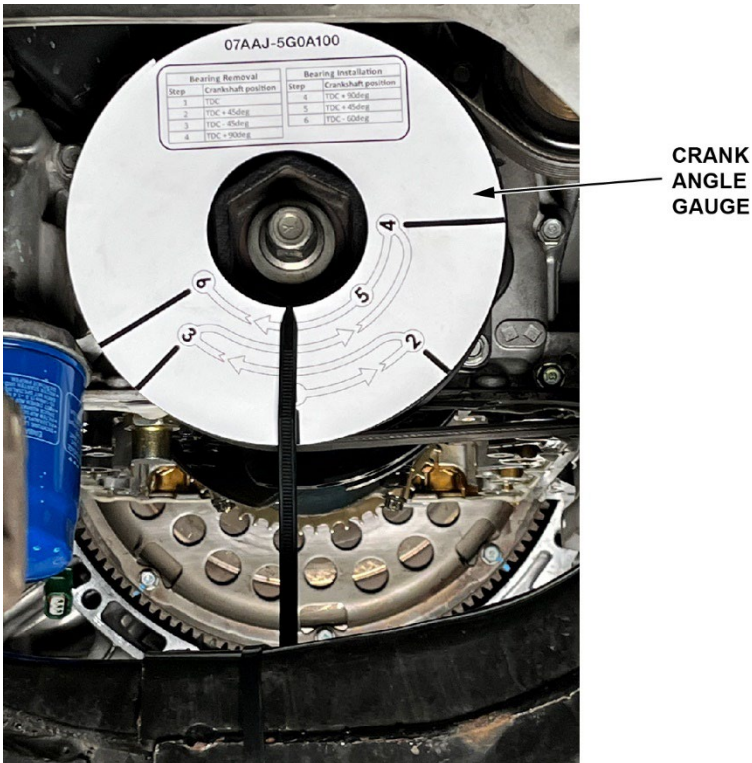
- Do not confuse the existing marking on the side of the connect rod and rod cap with the cylinder number. Those are manufacturing marks referring to the size of the rod.
- Reminder, installing a rod cap incorrectly will result in engine knock and/or engine failure.



24. Make sure the bearing photo box (P/N 07AAK-5J2A200) and inspection trays are available for use.



25. Make sure that cylinder 1 is at TDC, (position #1).



26. Remove the **connecting rod bearing caps with the lower bearings** from **cylinders 1,3,5, and 6**.



Click here to view a video:

NOTE:

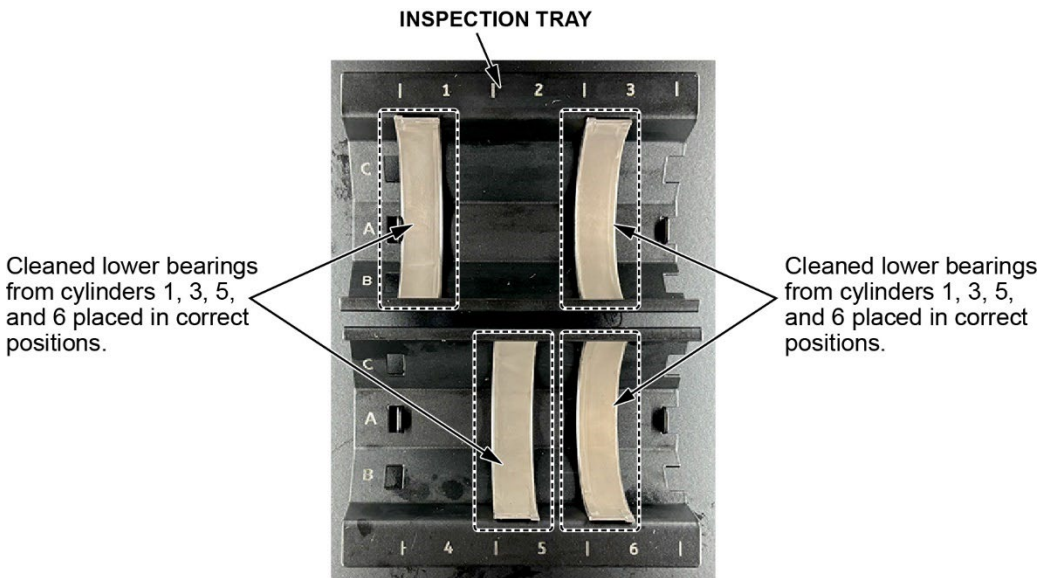
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 1 Rod Bearing Cap and Lower Bearing	Cylinder 3 Rod Bearing Cap and Lower Bearing	Cylinder 5 Rod Bearing Cap and Lower Bearing	Cylinder 6 Rod Bearing Cap and Lower Bearing
#1/At TDC	Remove	Remove	Remove	Remove

27. Place the removed lower bearings from **cylinders 1,3,5, and 6** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter**.



28. Rotate the crankshaft clockwise to the **#2 position** (TDC +45°).



Rotate the crank clockwise to the #2 position.

29. Remove the **rod bearing cap** and **lower bearing** from **cylinder 2**.

NOTE:

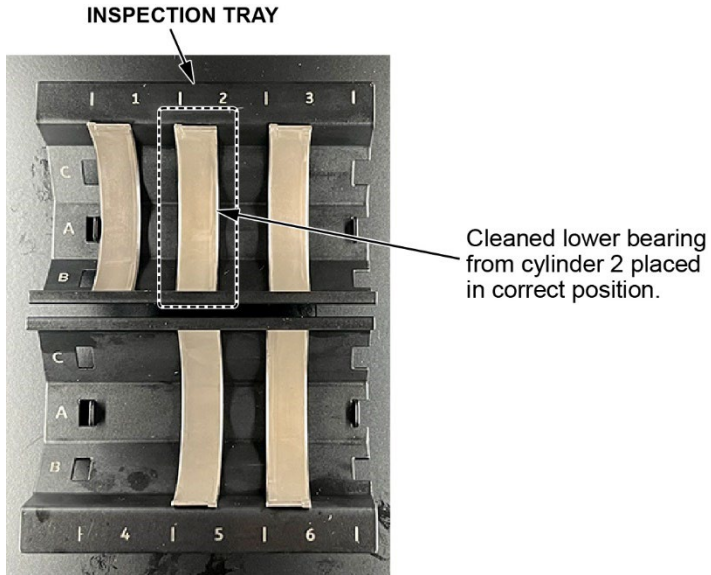
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 2 Rod Bearing Cap and Lower Bearing
#2/TDC +45°	Remove

30. Place the removed lower bearing from **cylinder 2** into the rod bearing organizer.

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter**.



31. Remove the **upper connecting rod bearing** from **cylinder 2**.

[▶ PLAY VIDEO](#)

Click here to view a video:

M8 ROD HOLDER
P/N 07AAB-5G0A100

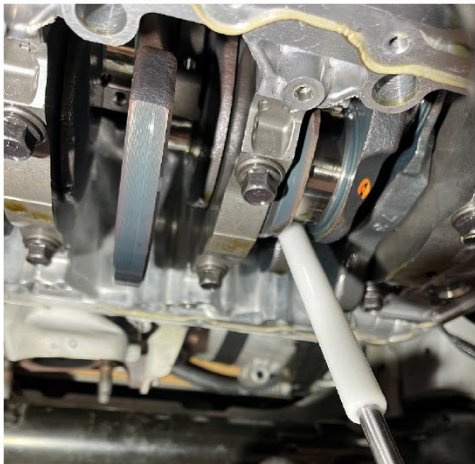


NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the rod holder tool as needed, hand tighten only!

Step/Crankshaft Position	Cylinder 2 Upper Bearing
#2/TDC +45°	Remove

EXAMPLE OF USING THE M8 ROD HOLDER:

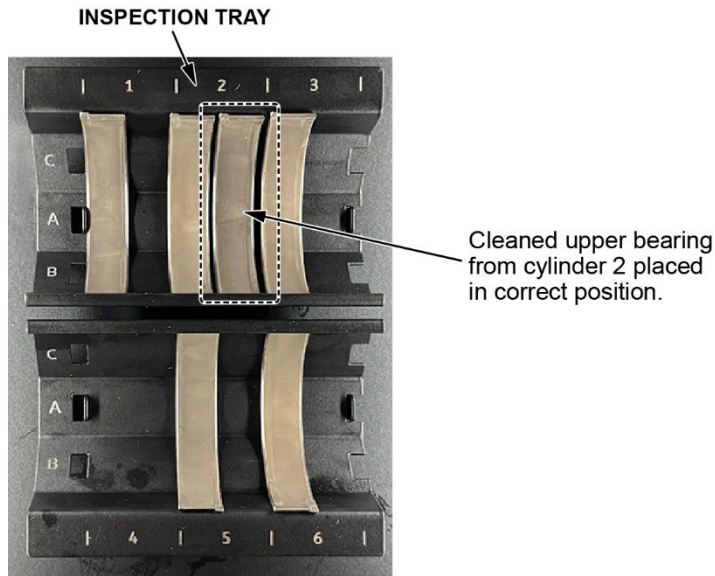


1. Thread the rod holder into the connecting rod bolt hole.
2. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
3. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
4. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
5. Using the rod holder, carefully push the connecting rod back up until it clears the crankshaft journal.
6. Remove the rod holder.
7. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

32. Place the removed **upper bearing** from **cylinder 2** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement in the tray does not matter.**



33. Rotate the crankshaft counterclockwise to the **#3 position** (TDC -45°).

Rotate the crank counterclockwise to the #3 position.



34. Remove the **rod bearing cap and lower bearing** from **cylinder 4**.

NOTE:

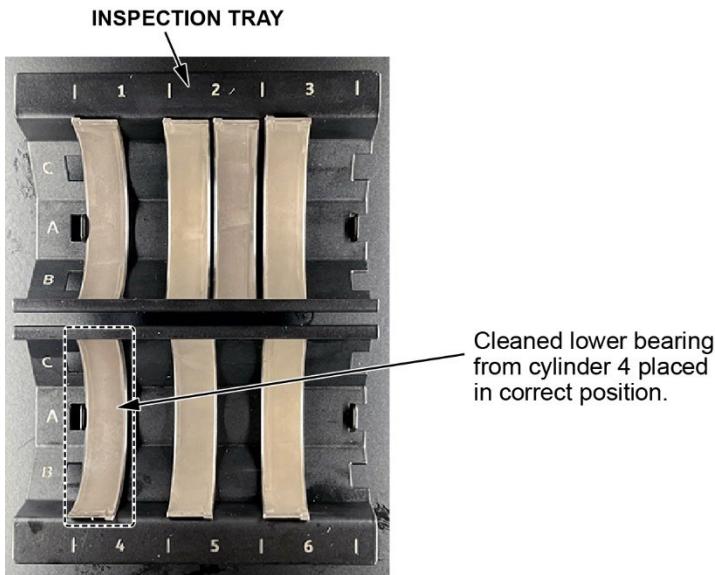
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 4 Rod Bearing Cap and Lower Bearing
#3/TDC -45°	Remove

35. Place the removed **lower bearing** from **cylinder 4** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter.**



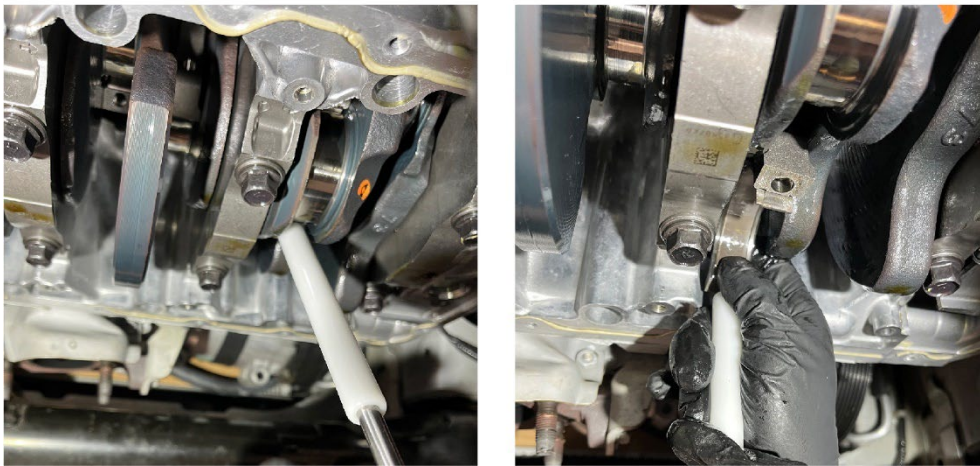
36. Remove the **cylinder 3 and cylinder 4 upper connecting rod bearings**.

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- The next steps involve manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the M8 as needed, hand tighten only!

Step/Crankshaft Position	Cylinder 3 Upper Bearing	Cylinder 4 Upper Bearing
#3/TDC -45°	Remove	Remove

EXAMPLE OF USING THE M8 ROD HOLDER:

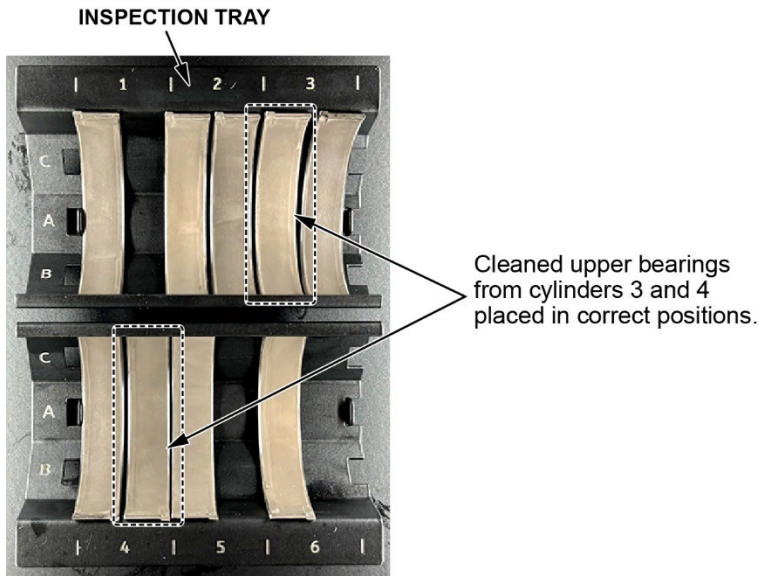


1. Thread the rod holder into the connecting rod bolt hole.
2. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
3. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
4. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
5. Using the rod holder, carefully push the **cylinder 3** connecting rod back up until it clears the crankshaft journal.
NOTE: Leave **cylinder 4** connecting rod in the lower position, **do not** push back up.
6. Remove the rod holder.
7. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

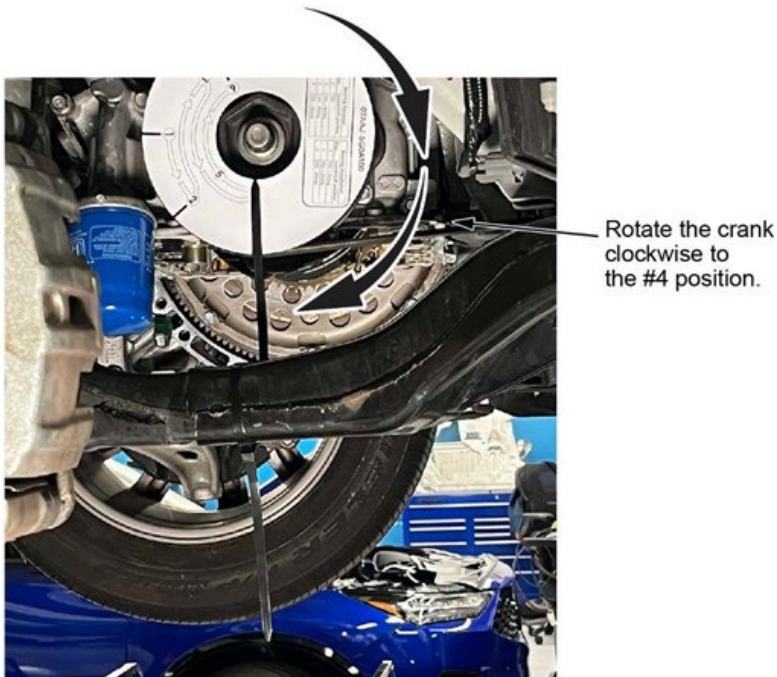
37. Place the removed **upper bearings** from **cylinder 3 and 4** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter.**



38. Rotate the crankshaft clockwise to the **#4 position** (TDC +90°).



39. Remove the **upper bearings from cylinders 1, 5, and 6.**

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- The next steps involve manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the M8 as needed, hand tighten only!

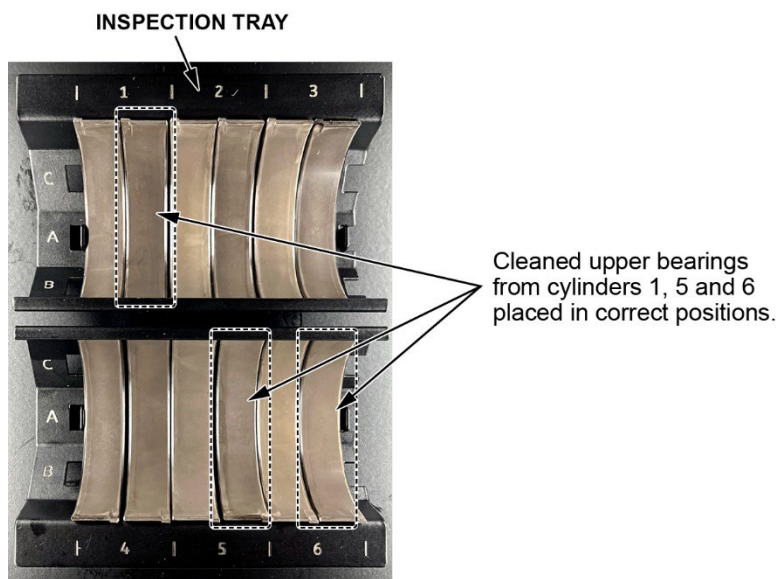
Step/Crankshaft Position	Cylinder 1 Upper Bearing	Cylinder 5 Upper Bearing	Cylinder 6 Upper Bearing
#4/TDC +90°	Remove	Remove	Remove

1. Thread the Rod holder into the connecting rod bolt hole.
2. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
3. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
4. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
5. Using the Rod holder, carefully push the connecting rod back up until it clears the crankshaft journal.
6. Remove the Rod holder.
7. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

40. Place the removed **upper bearings from cylinders 1, 5, and 6** into the rod bearing organizer.

NOTE:

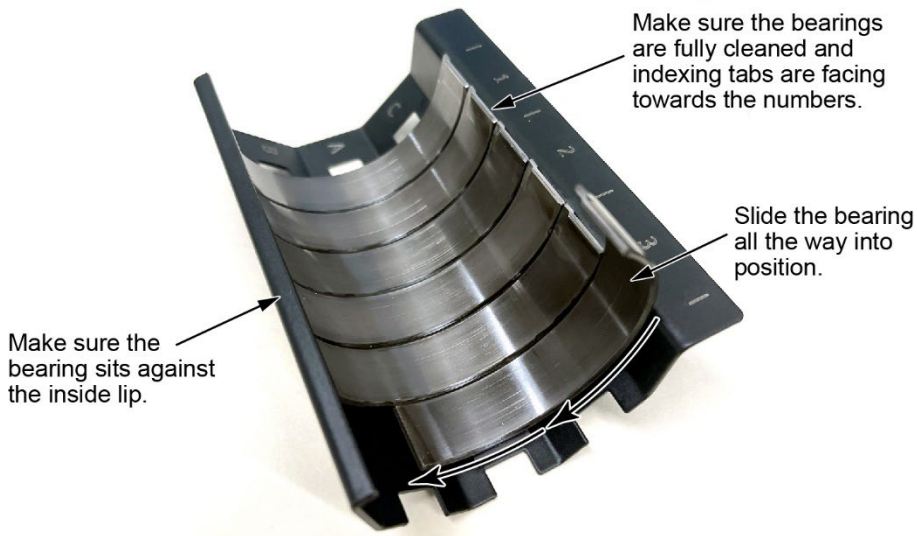
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement in the tray does not matter.**



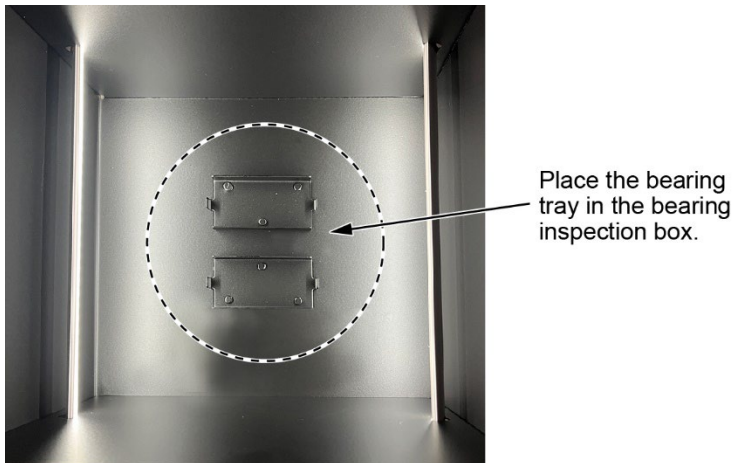
41. Make sure the bearings are fully seated and level with the edge of the rod bearing organizer.

NOTE:

- The bearing's indexing tab should be lined up at the numbers of the tray.
- The flat edge of the bearing should be inside of the lip on the rod bearing organizer.
- All bearings should be fully seated in the inspection tray.



42. Remove the bearing photo box cover and place the bearing organizers in.

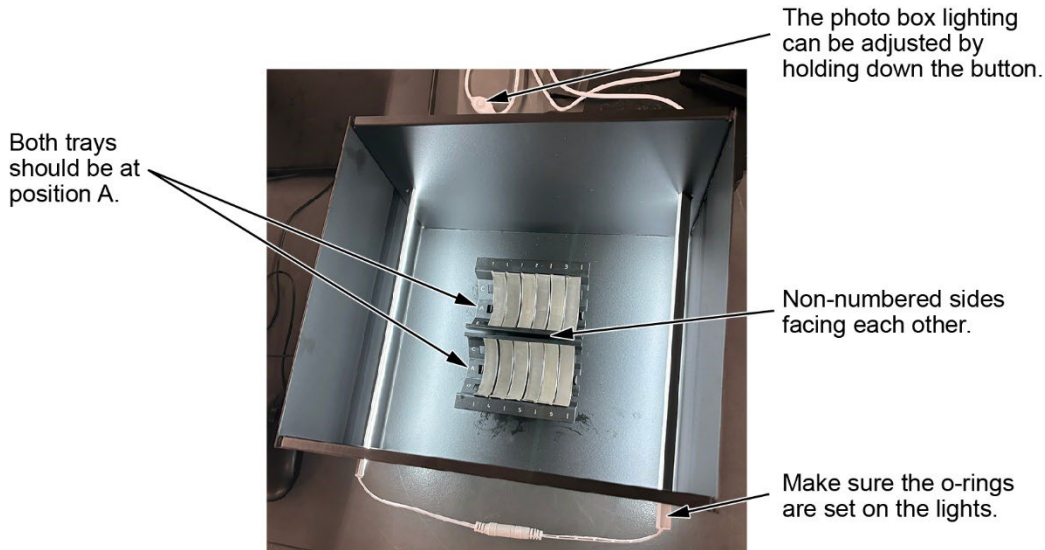


43. Confirm the following on the bearing inspection box:

1. Lights at the brightest setting.

NOTE: The light brightness can be adjusted by holding the button.

2. Both bearing trays are in position A with non-numbered sides facing each other.
3. The O-rings are set on the lights to prevent an outside light source.



44. Login to the V-SMART tool.

NOTE: Scanning the VIN will return to where you last left off at.

45. Using the V-SMART tool, follow the instructions on the application to take bearing photos in positions A, B, and C. Follow the prompts when submitting the photos.

NOTE:

- Use the camera tap focus for a clear image.
- Any unclear images will not be accepted.
- Follow the V-SMART tool prompts after photo submission.



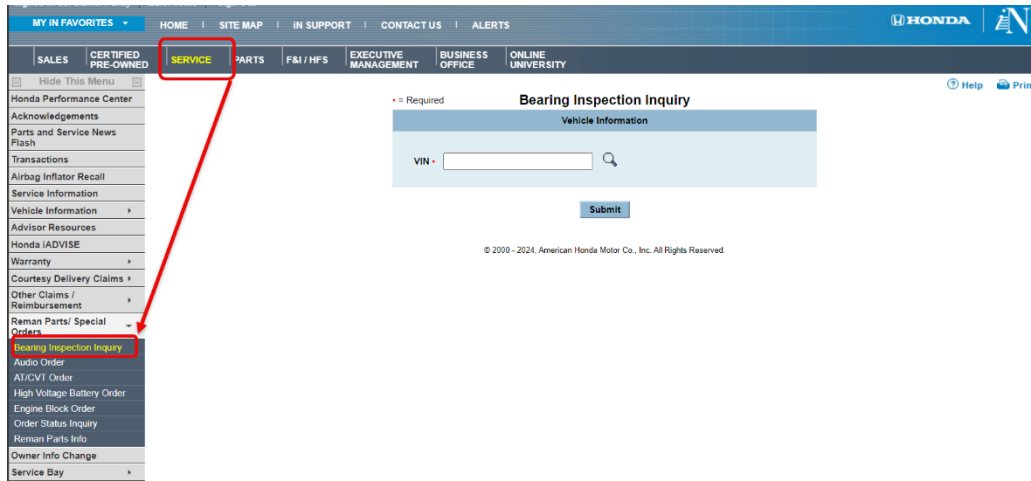
When taking the photos:

Tap here to focus camera.

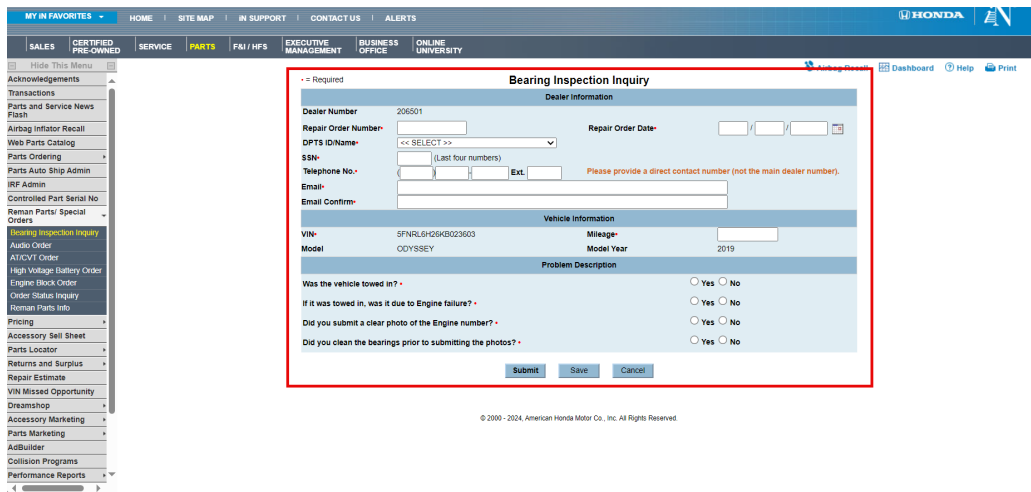


46. Create a Bearing Inspection Inquiry.

1. Log into iN.
2. Select SERVICE > REMAN PARTS / SPECIAL ORDERS > BEARING INSPECTION INQUIRY
3. Select the BEARING INSPECTION INQUIRY.
4. Input the correct VIN.



5. Input all vehicle information to create a case.



6. A 7-digit case reference number will be generated.

NOTE: Note this number on the RO for future reference.

7. Call the **Bearing Inspection Inquiry Team** at **(800) 824-6632**. Press **9** to be routed to the correct department (**do not contact TECH LINE for this**). Give the answering agent the **7-digit reference number** for a repair direction.

NOTE:

- MAKING THE INCORRECT SELECTION WILL RESULT IN INCREASED WAIT TIMES.
- **DO NOT** contact Tech Line for any inquires to this safety recall. You must call the **Bearing Inspection Inquiry Team** at **(800) 824-6632 (Select Option #9)** for all inquiries and repair direction.

47. The bearing inspection agent will give the **Repair Direction**. You will receive instructions via email on the repair method that includes the unique warranty code and the bearing sizes with their specific locations, if applicable. Parts will be shipped to your dealership. Make sure to advise the parts department with a copy of the RO.

48. NOTE: Link to CONTENT REFERENCE, ([Click HERE](#)).

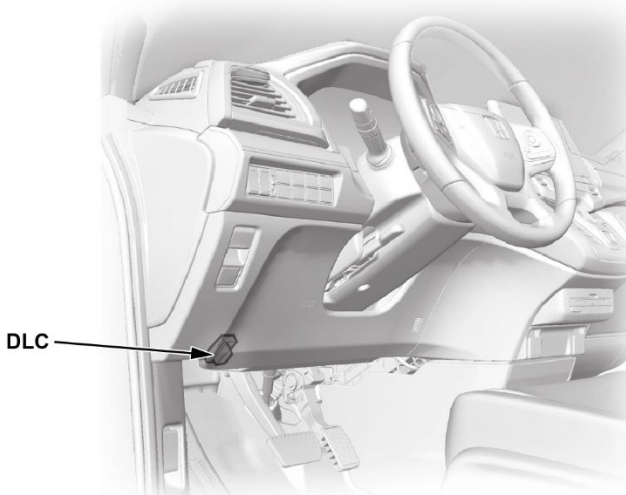
INSPECTION B

NOTE: DO NOT contact Tech Line for any inquires to this safety recall. You must call the Bearing Inspection Inquiry Team at (800) 824-6632 (**Select Option #9**) for all inquiries and repair direction.

1. Turn the steering wheel all the way to the right.
2. Relieve the fuel pressure.

With the i-HDS:

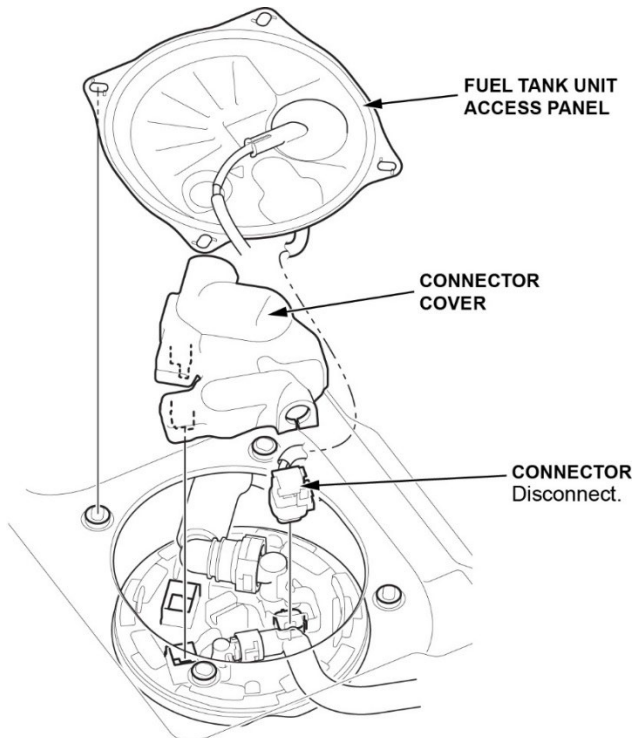
- Connect an i-HDS to the data link connector (DLC) located under the driver's side of the dashboard.



- Turn the vehicle to ON.
- Select the **PGM-FI** system on the i-HDS.
- Select the **FUEL PUMP OFF** from the **Inspection Menu** and follow the screen instructions.

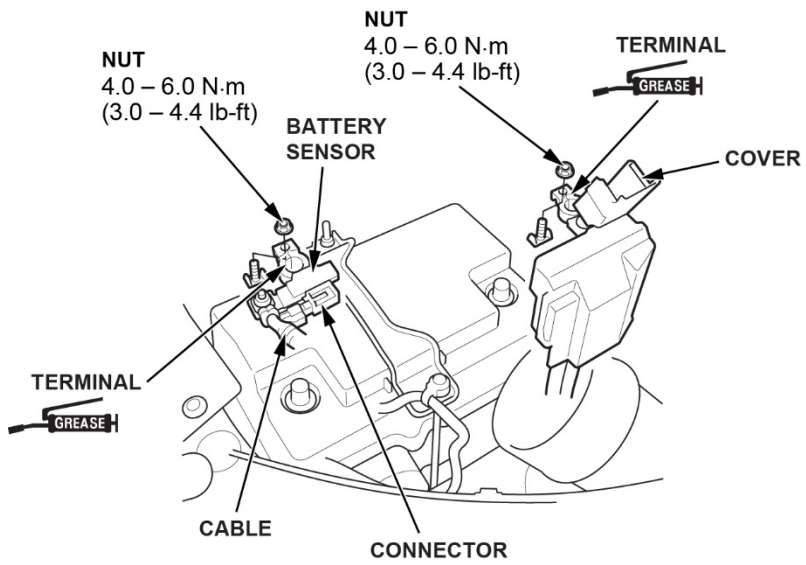
Without an i-HDS:

- Remove the fuel tank unit access panel and disconnect the connector from the fuel tank unit access panel.

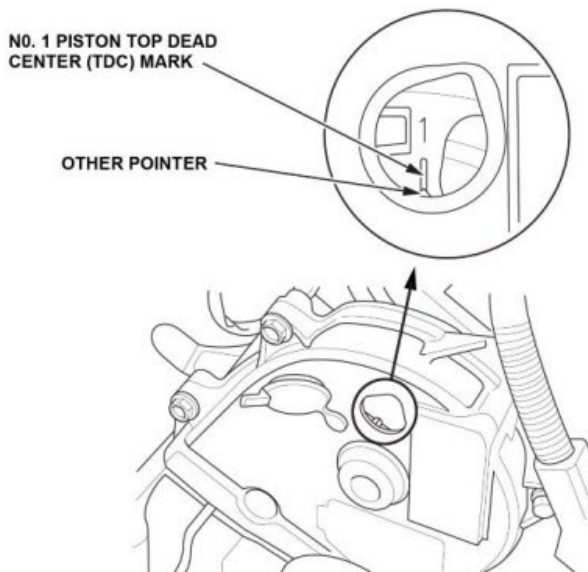


- Start the engine, and let it idle until it stalls.

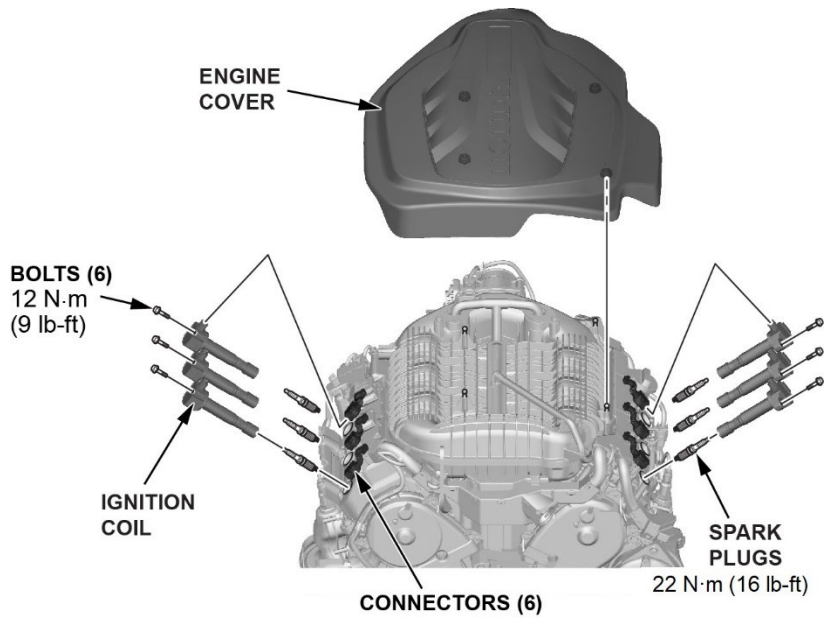
3. Disconnect the 12-volt battery.



4. Remove the engine oil dipstick.
5. Remove the strut tower bar.
6. Set the engine to TDC.

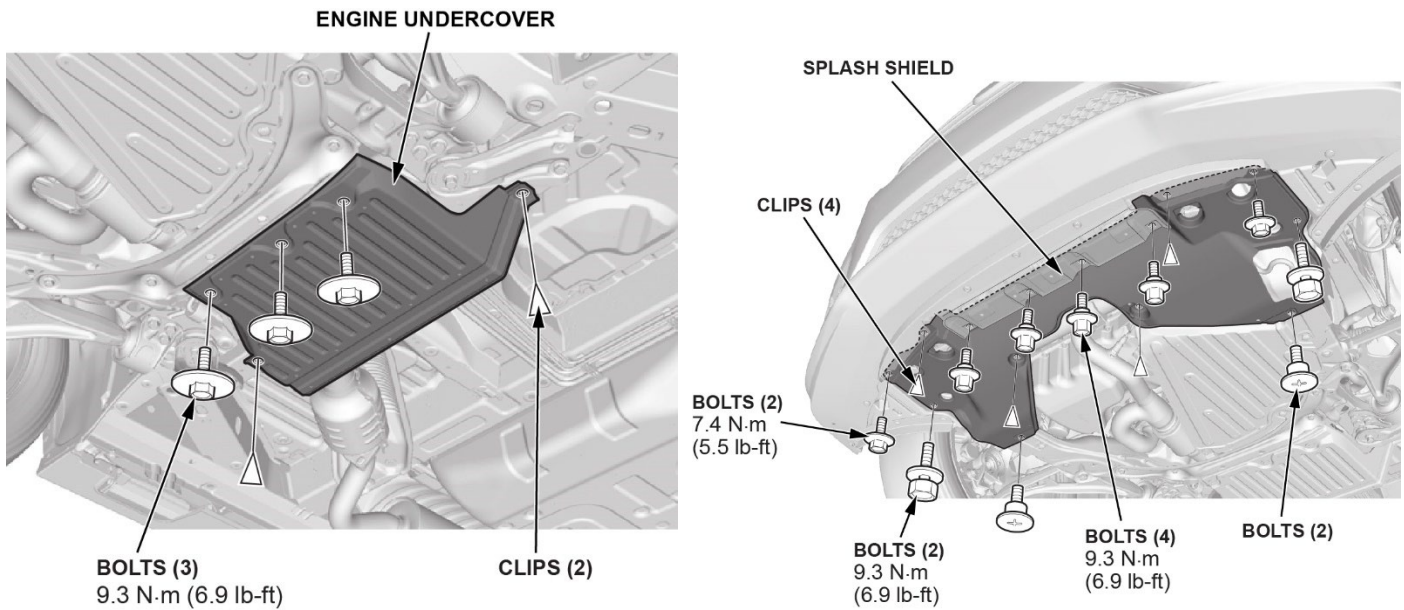


7. Remove the engine cover, the ignition coils, and spark plugs.

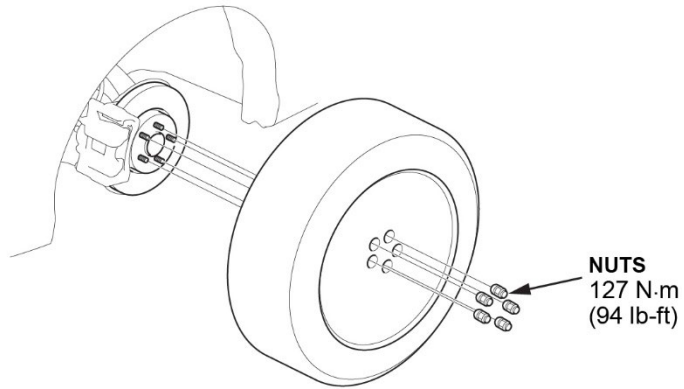


8. Lift the vehicle.

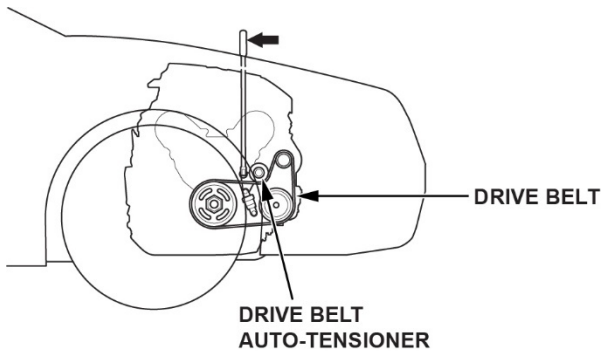
9. Remove the engine undercover and the lower splash shield.



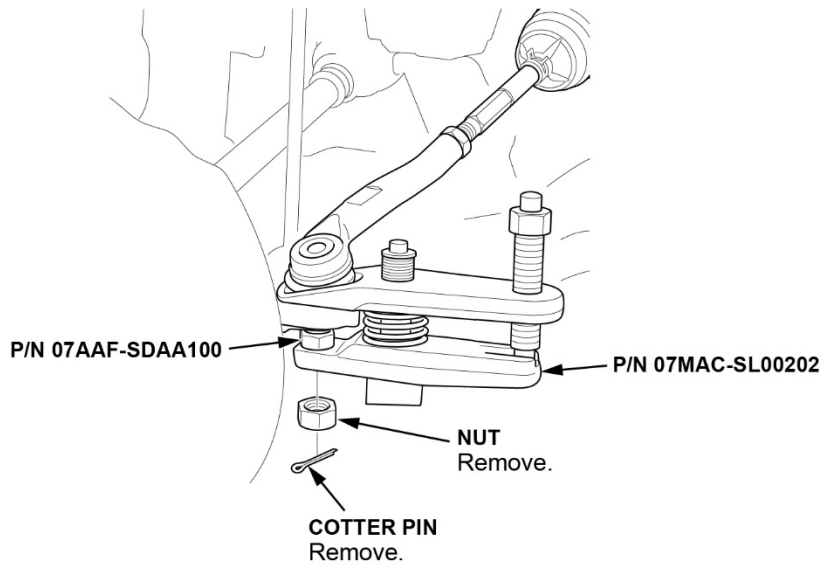
10. Remove the passenger side front wheel **127 N·m (94 lb-ft)**.



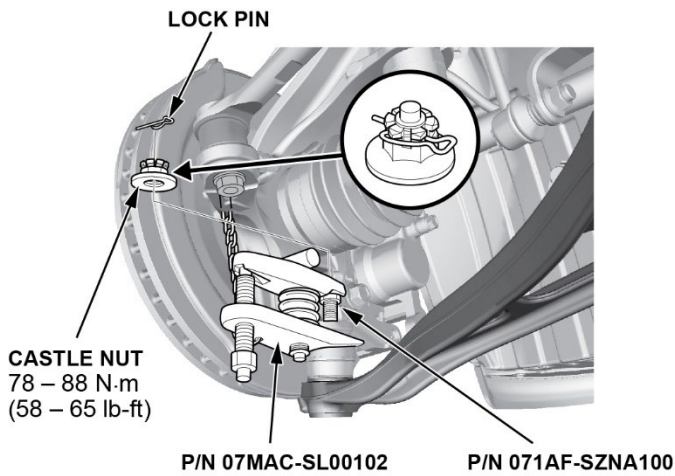
11. Remove drive belt.



12. Separate the tie rod ball joint on the passenger side front wheel.

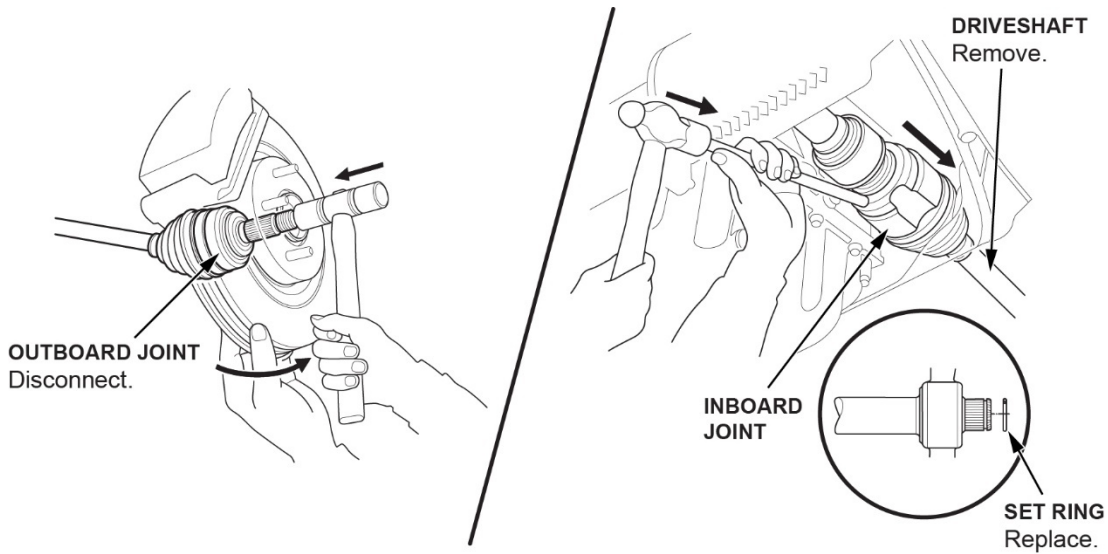


13. Separate the lower knuckle ball joint.



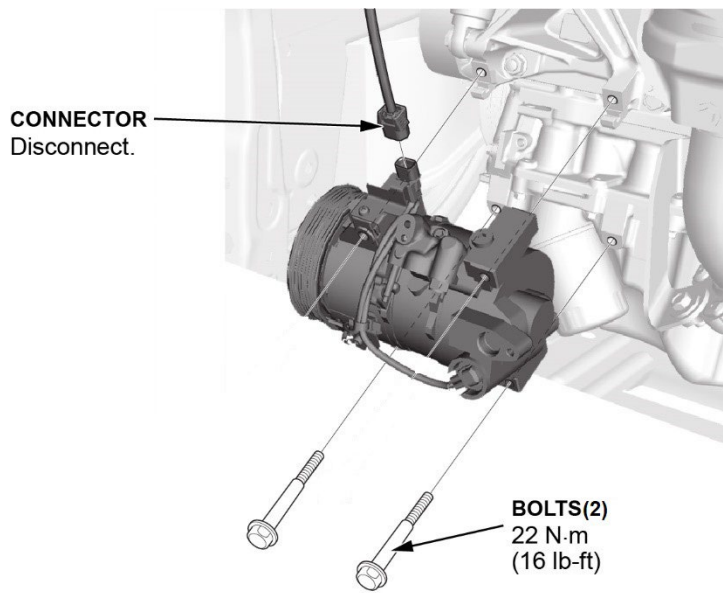
14. Remove the passenger side drive shaft.

1. Remove the front spindle nut.
2. Pull the knuckle outward and separate the outboard joint from the front hub using a soft face hammer.
3. Drive the inboard joint off of the intermediate shaft using a drift punch and a hammer.

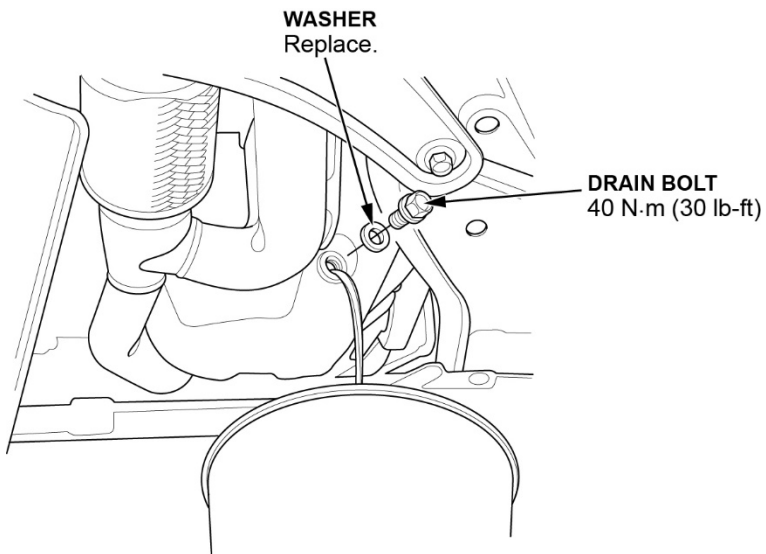


4. Remove the driveshaft as an assembly.
5. Remove and replace the set ring.

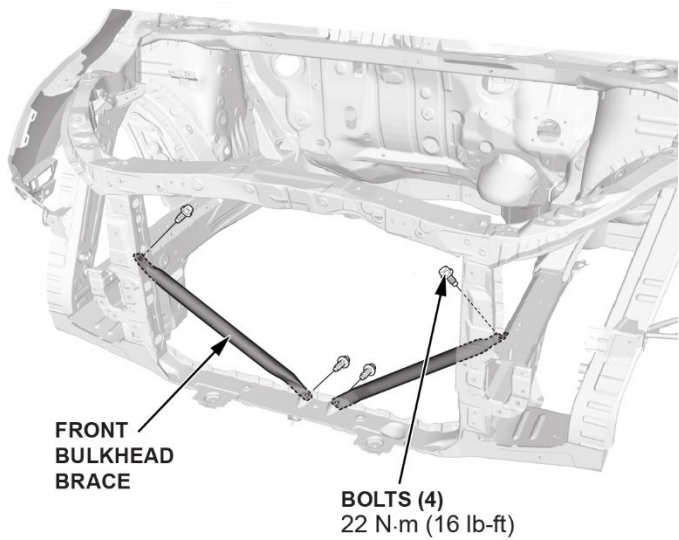
15. Loosen the 2 lower bolts of the compressor.



16. Drain the engine oil, 40 N·m (30 lb-ft).



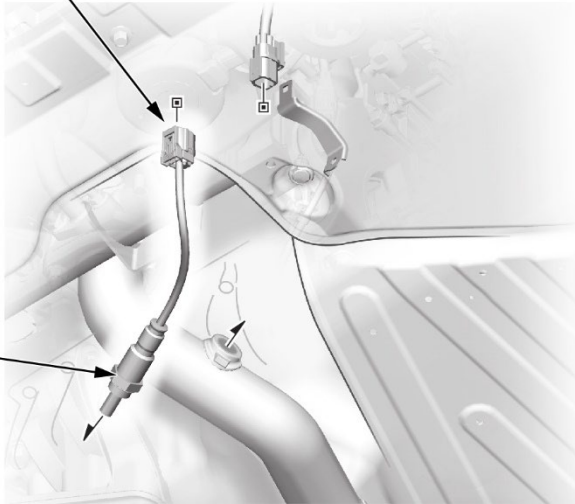
17. Remove the right side bulkhead brace.



18. Unplug bank 2 oxygen sensor.

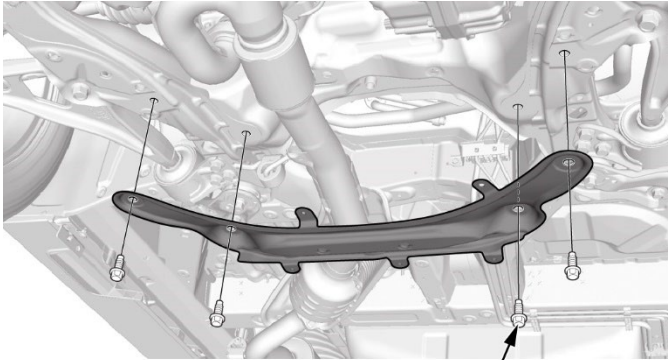
NOTE: Exhaust may be HOT.

OXYGEN SENSOR
Unplug.



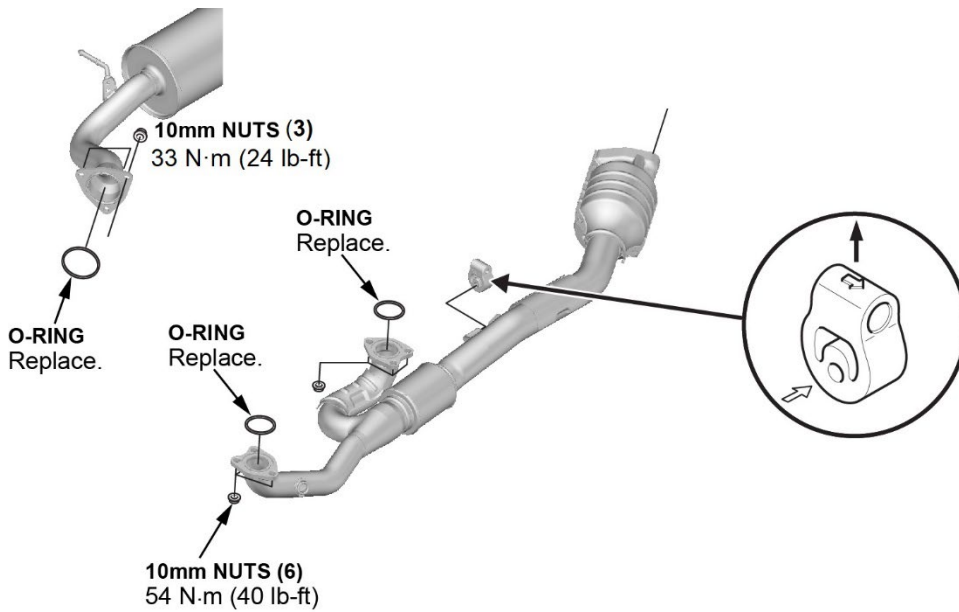
45 N.m
(33 lb-ft)

19. Remove the sub frame stiffener plate.

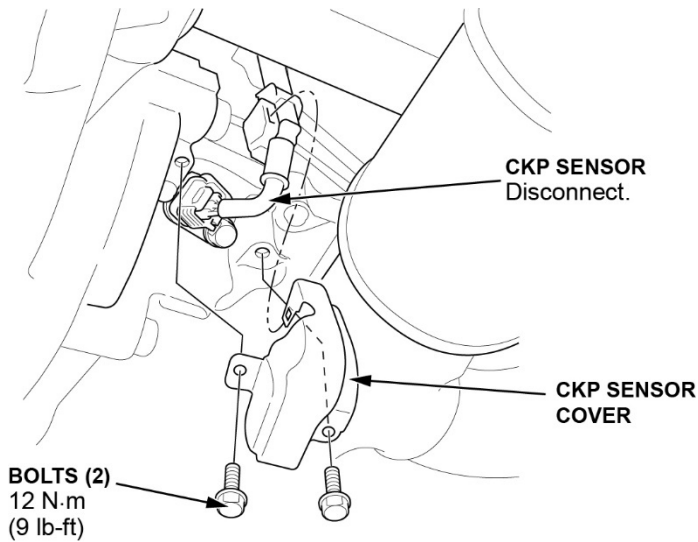


BOLTS (4)
54 N.m (40 lb-ft)

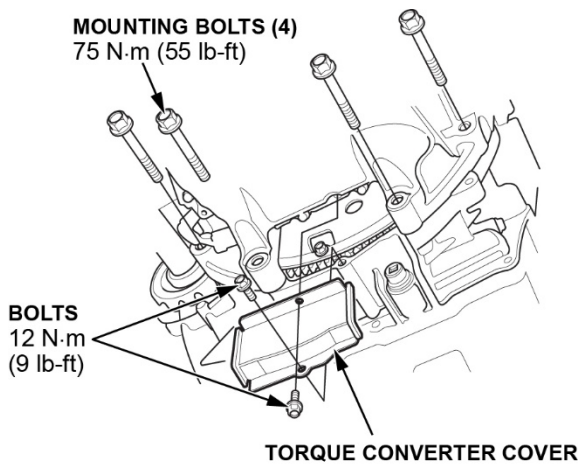
20. Remove the A-pipe.



21. Remove the CKP sensor cover and disconnect the CKP sensor.

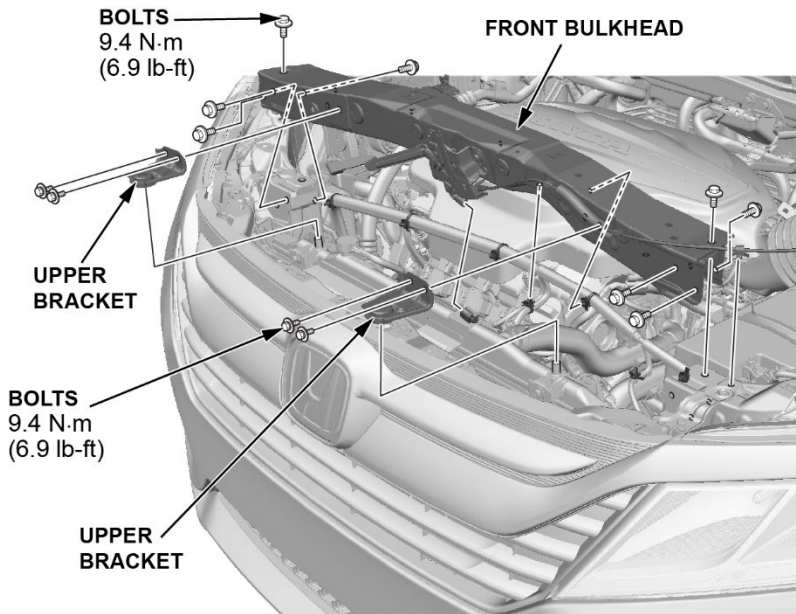


22. Remove the torque converter cover and the four lower transmission mounting bolts.

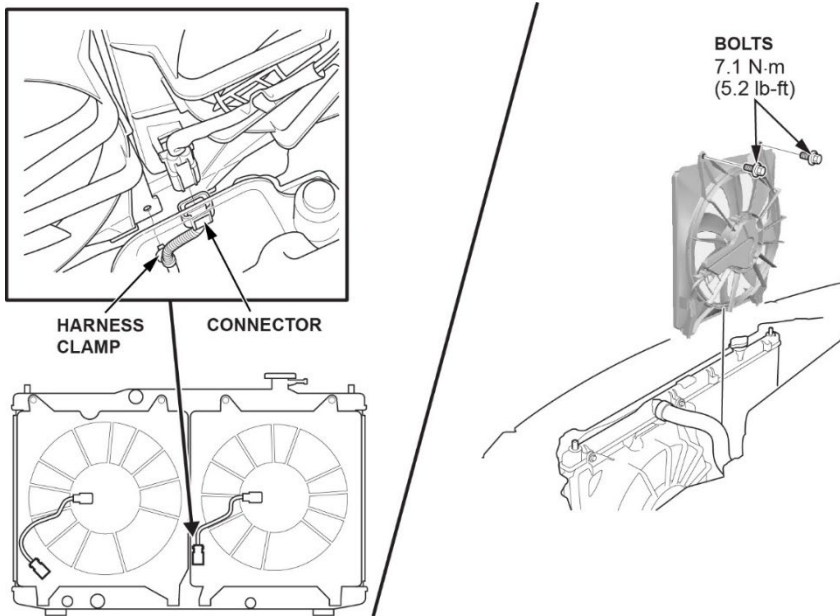


23. Lower the vehicle.

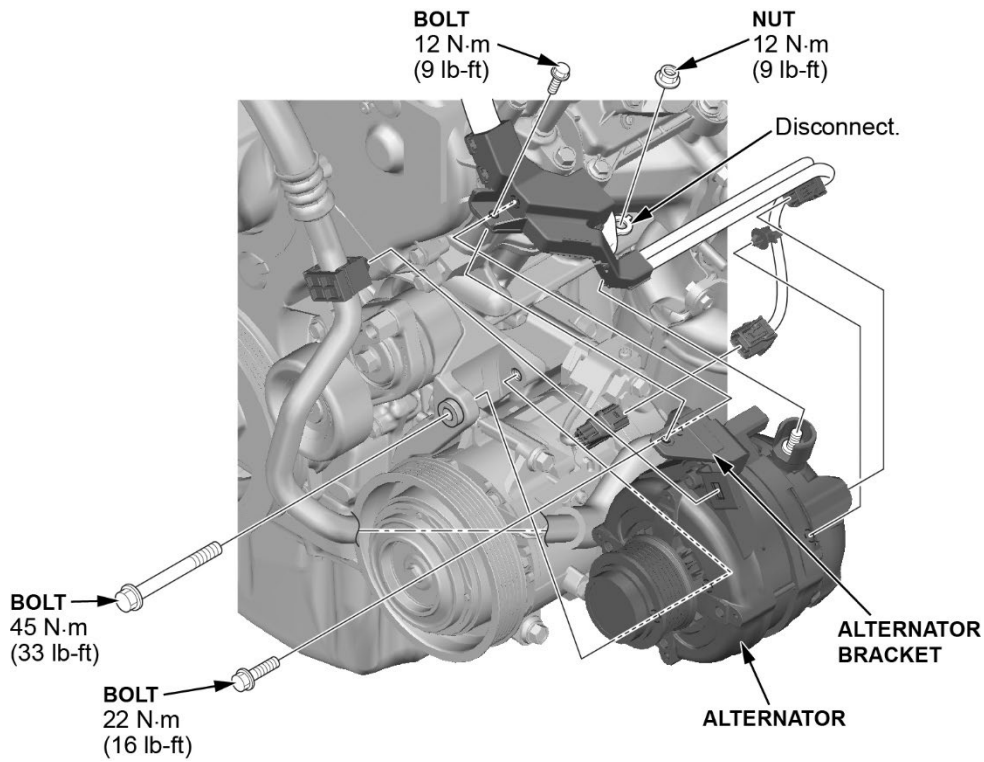
24. Remove the front bulkhead and upper bracket.



25. Remove the condenser fan.



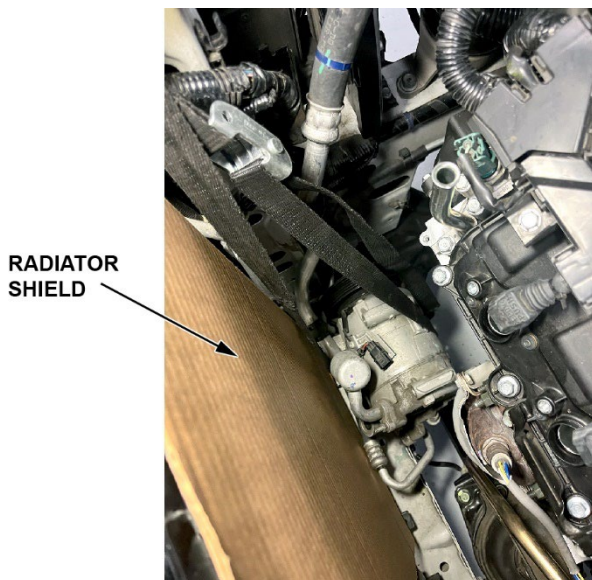
26. Remove the alternator and alternator bracket.



27. Install the radiator shield to protect the radiator.

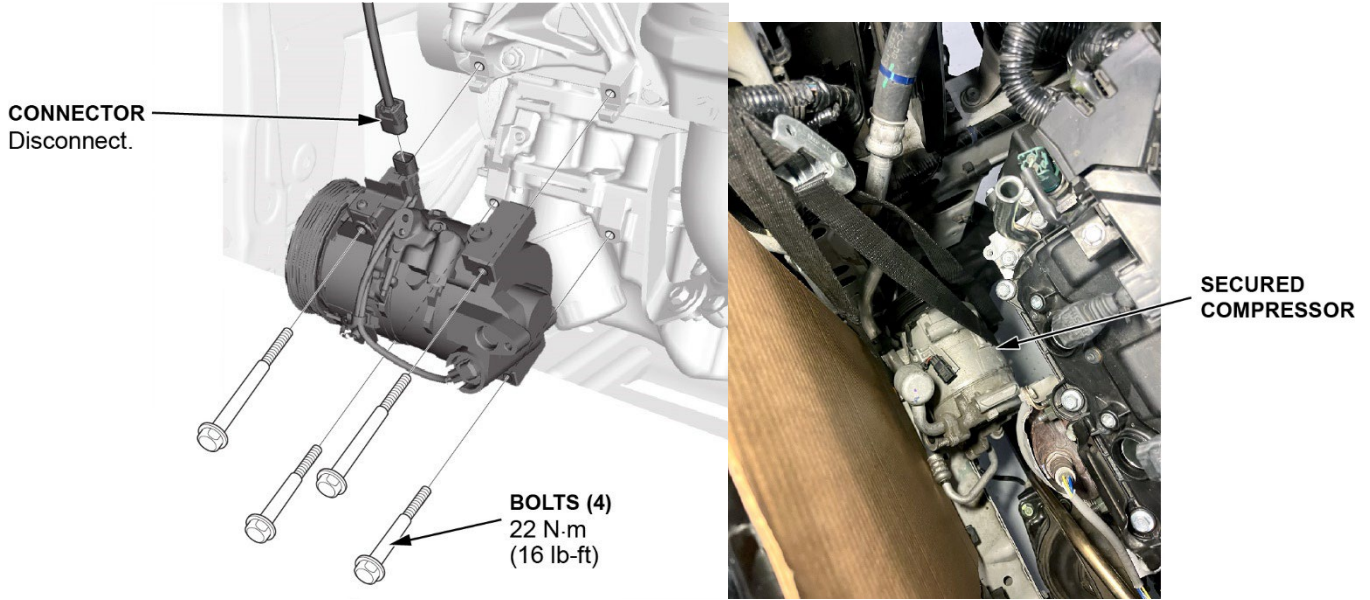
NOTE:

- A suitable radiator shield could be as simple as a clean piece of cardboard.
- Make sure the shield covers the entire radiator.

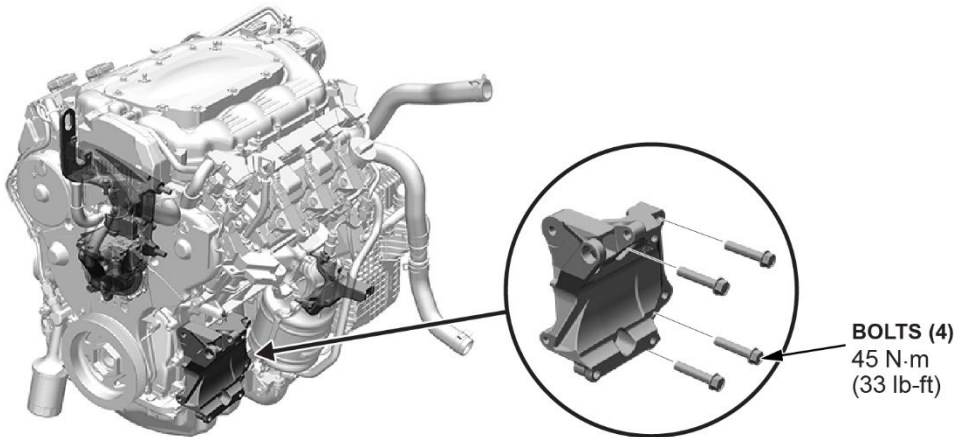


28. Remove the upper A/C compressor mounting bolts and move the A/C compressor forward to rest on the bulkhead frame by the radiator and secure with a strap.

NOTE: Do not disconnect the A/C hoses.



29. Remove the compressor bracket.



30. Lift the vehicle.

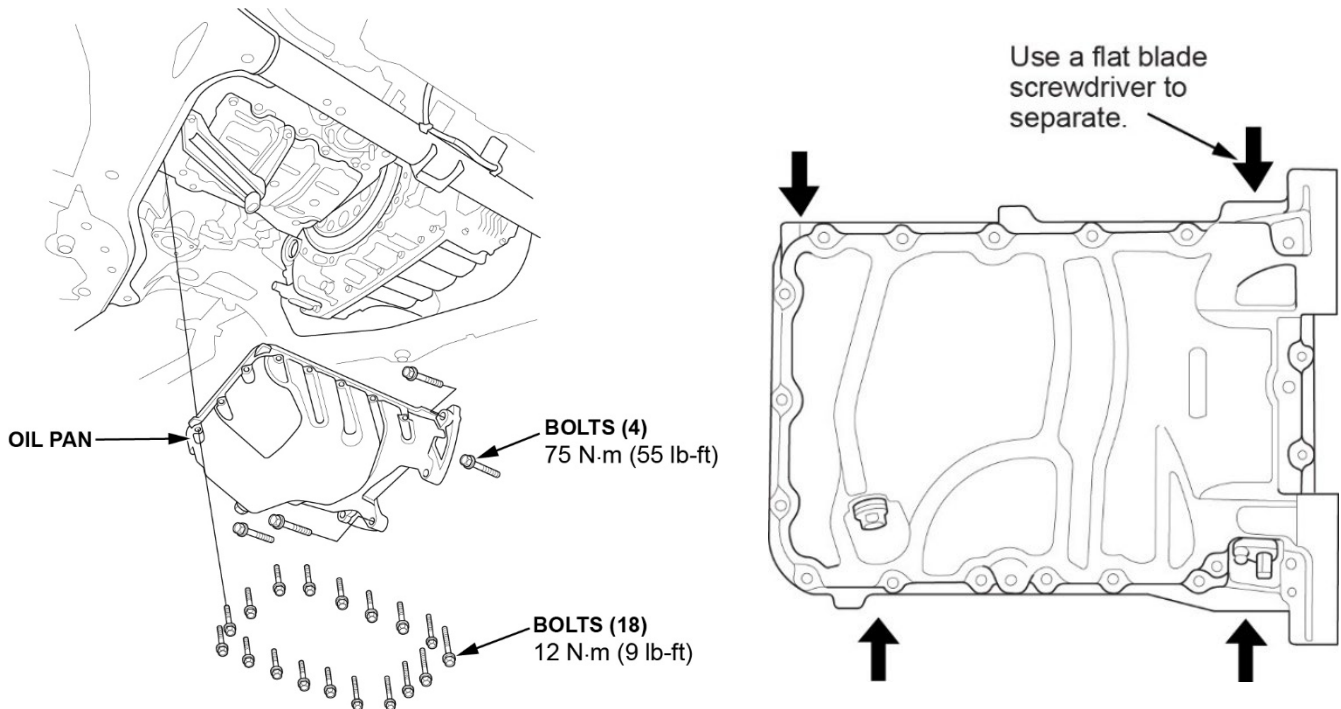
31. Remove the engine oil pan.

⚠ CAUTION

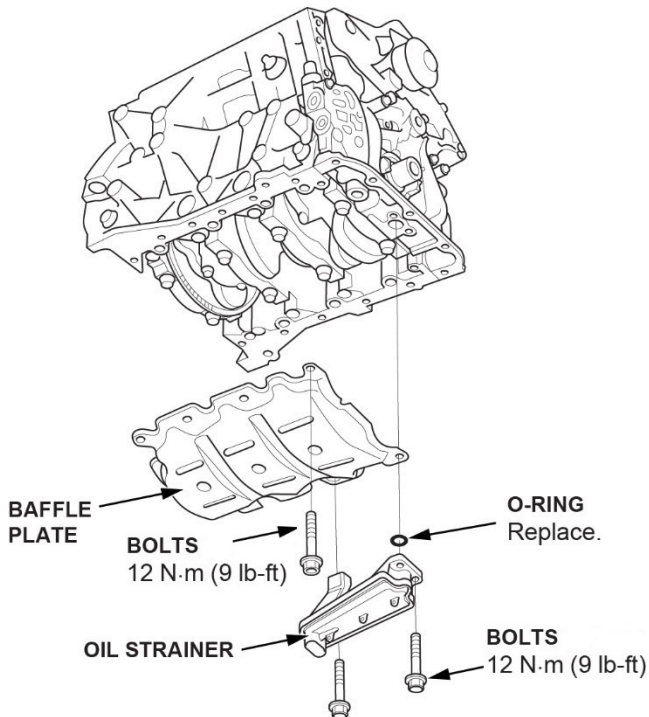
Hot engine oil may continue to drip from the engine which can cause burns or eye damage. Wear proper protective equipment and eyewear to avoid injury.

NOTE:

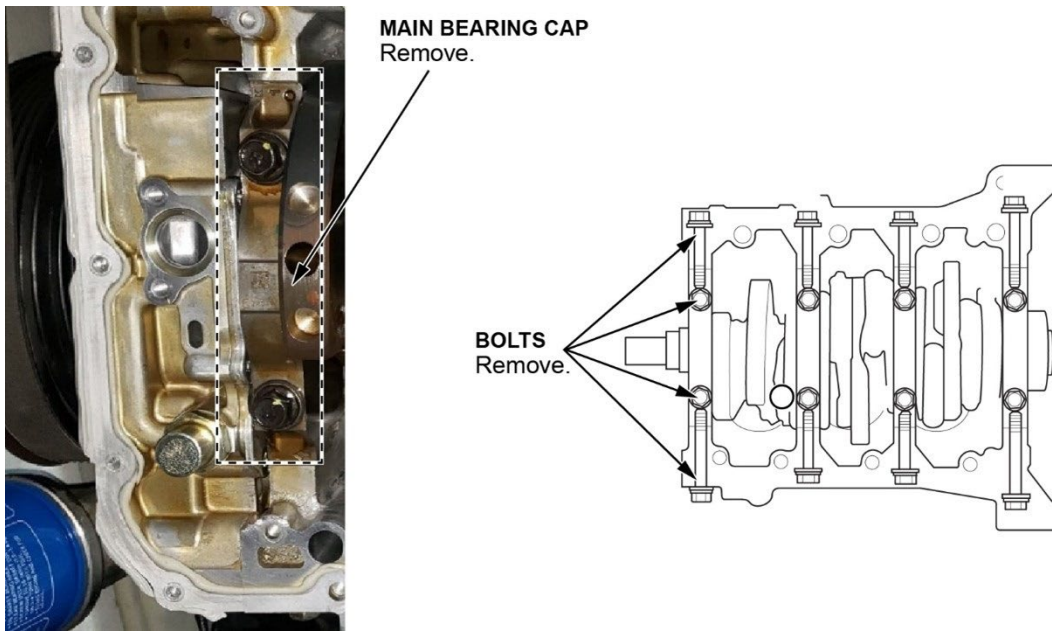
- Remove the bolts securing the oil pan.
- Use a flat blade screwdriver to separate the oil pan from the engine block.



32. Remove the oil strainer and baffle plate.

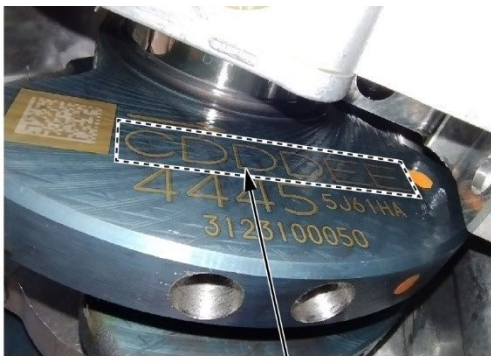


33. Remove the #1 main bearing cap by removing both the side and lower bolts.

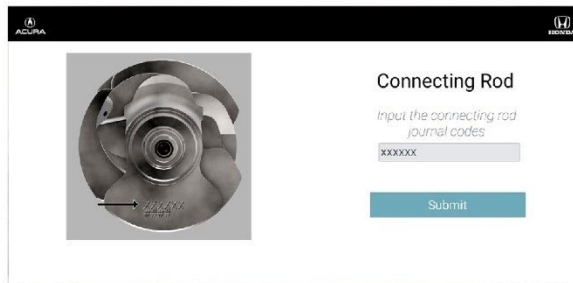


34. Login to the V-SMART tool.

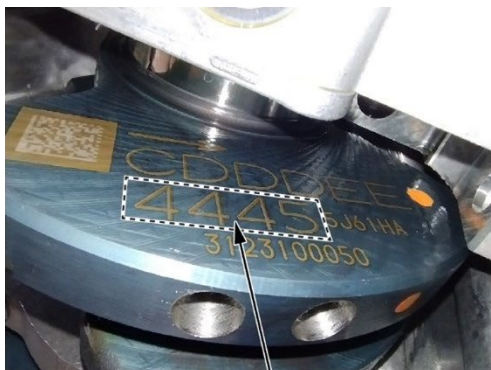
35. Enter the connecting rod journal code.



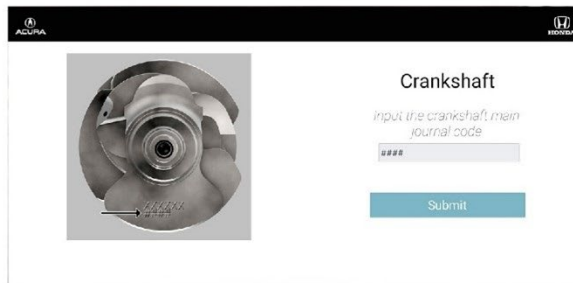
**CONNECTING ROD
JOURNAL CODE**



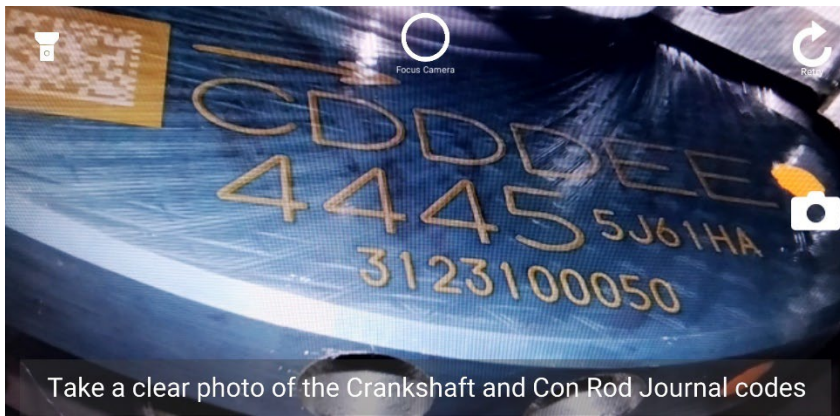
36. Enter the crankshaft main journal code.



**CRANKSHAFT MAIN
JOURNAL CODE**



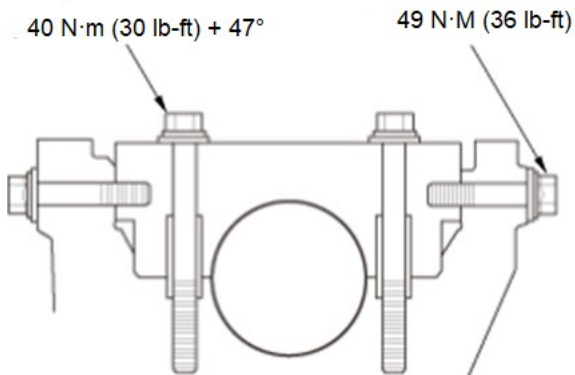
37. Take a picture of the code on the crankshaft counterweight with the V-SMART tool.



38. Install the #1 main bearing cap.

NOTE:

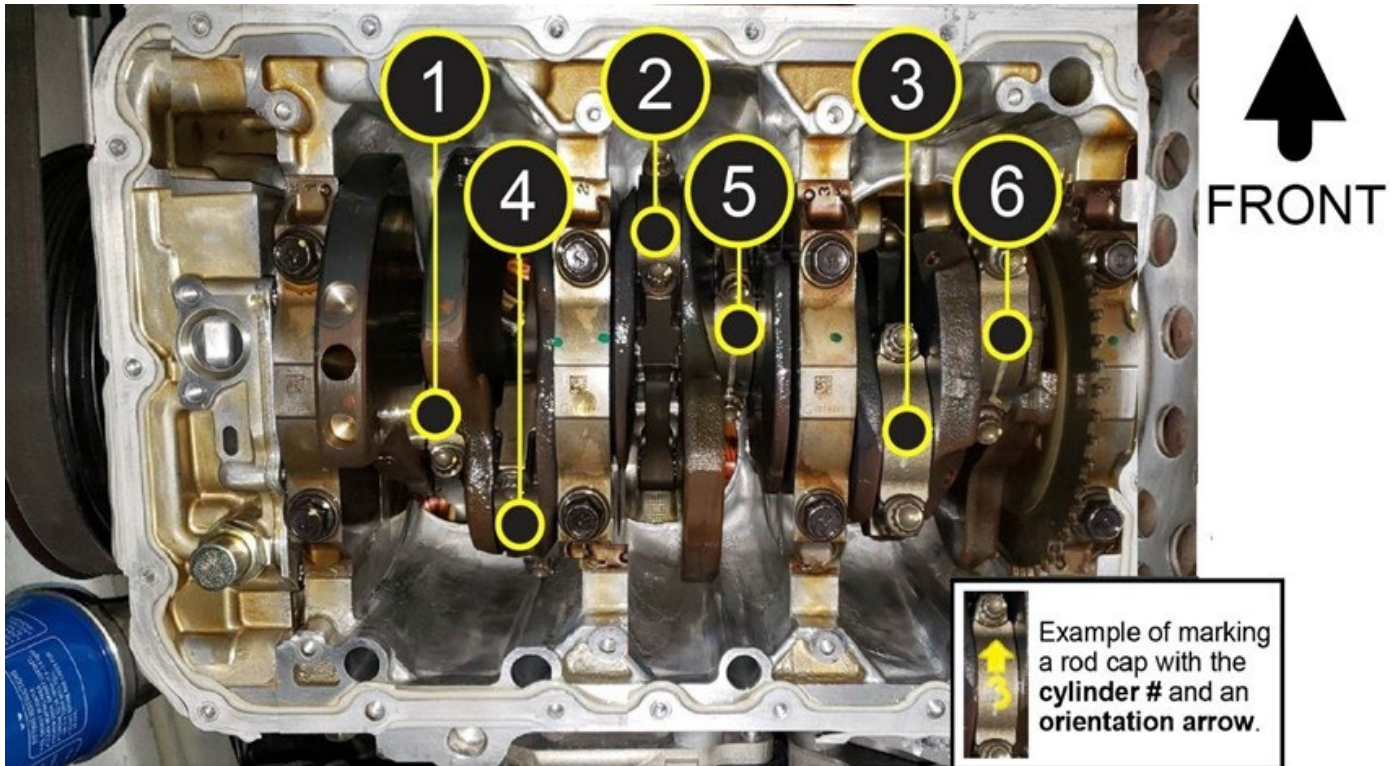
- Apply new engine oil to the bolt threads and flanges.
 - **Do not** rotate the crankshaft during inspection.
1. Torque the 2 vertical bolts to **40 N·m (30 lb-ft)**.
 2. Torque the 2 horizontal bolts to **49 N·m (36 lb-ft)**.
 3. Torque the 2 vertical bolts again an additional **47°**.



39. Clean and label each connecting rod cap with a paint marker (or otherwise suitable marking instrument) prior to removal. Make sure each rod cap has both the **cylinder #** and an **orientation arrow** towards front, in example: **3↑**.

NOTE:

- Do not confuse the existing marking on the side of the connect rod and rod cap with the cylinder number. Those are manufacturing marks referring to the size of the rod.
- Installing a rod cap incorrectly will result in engine knock and/or engine failure.

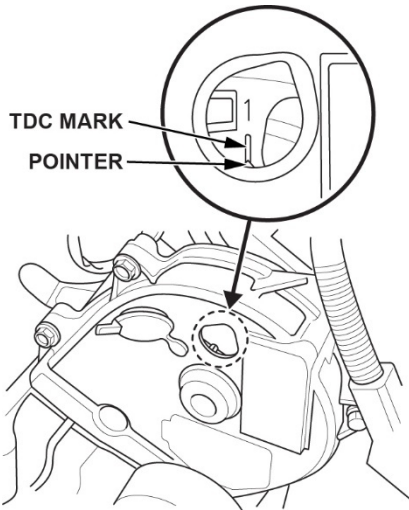


40. Make sure you are still logged into the V-SMART tool and follow the screen commands.

41. Rotate the engine to take pictures of all the connecting rod numbers:

1. Rotate crank 240° clockwise for pictures of **connecting rods 1, 4, 5, and 6**. Enter the values and pictures into the V-SMART application, as directed.
2. Rotate crank 120° clockwise until **cylinder 3** rod is visible. Enter the value and take a picture into the V-SMART application, as directed.
3. Rotate crank 120° clockwise until **cylinder 2** rod is visible. Enter the value and take a picture into the V-SMART application, as directed.
4. Rotate the crankshaft approximately 240° clockwise until **cylinder 1** is back at TDC.

42. Make sure **cylinder 1** to top dead center (TDC). Align the pointer on the front upper cover with the No. 1 Piston TDC mark on the front camshaft.

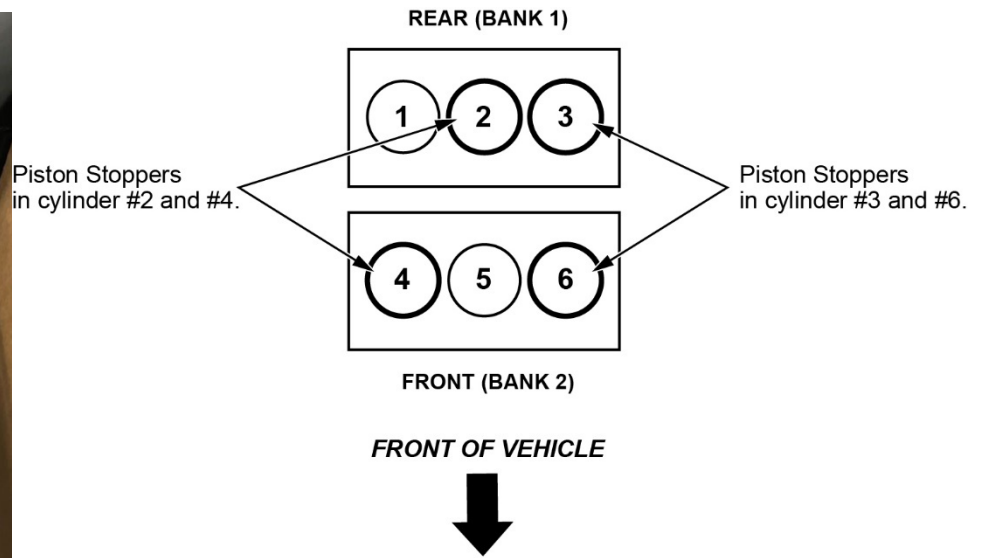


43. Install piston stoppers to **cylinders 2, 3, 4, and 6**.

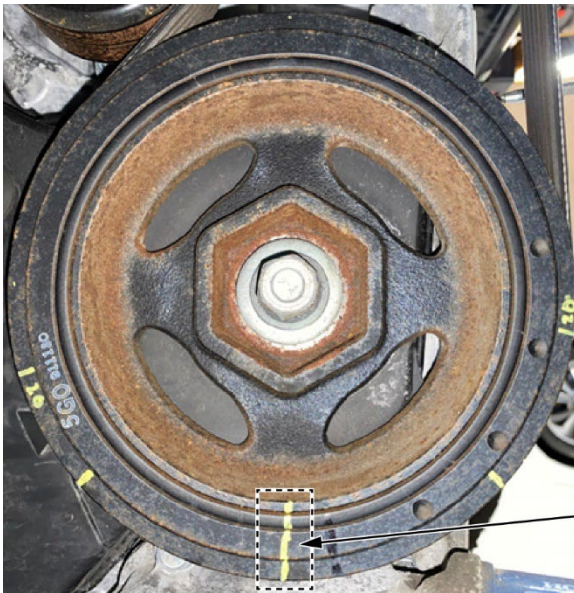
NOTE: Hand tighten only!



PISTON STOPPER
P/N 07AAB-5G0200



44. With the crankshaft at TDC, mark the crankshaft pulley with a vertical line at the 6 o'clock position.



CRANKSHAFT PULLEY
Mark with a vertical line
from the 6 o'clock position.

45. Attach the crank angle gauge the crankshaft pulley with **position #1** correctly aligned at the 6 o'clock position.



Click here to view a video:

NOTE: The gauge has a magnetic reverse side that will hold onto the crankshaft pulley.



CRANK ANGLE GAUGE
P/N 07AAJ-5G0A100

46. Attach a large, commercially available zip tie to the subframe below the crankshaft pulley. The zip tie will be a **reference indicator** for a correct crank angle gauge position.

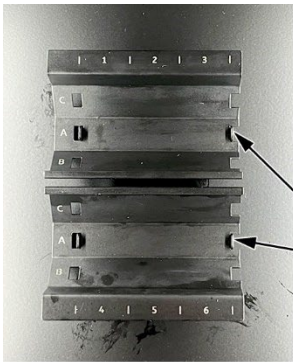
NOTE:

- Make sure it is pointing up at the 6 o'clock position on the pulley.
- The zip tie should extend roughly **8" to 12"** over the subframe.



ZIP TIE
Attach a zip tie to the frame and line up as shown.

47. Make sure the bearing photo box (P/N 07AAK-5J2A200) and inspection tray are available for use.



BEARING PHOTO BOX
INSPECTION TRAY



48. Make sure that **cylinder 1** is at TDC, (**position #1**).



49. With **cylinder 1** at TDC (position #1), remove the **connecting rod bearing caps with the lower bearings** from **cylinders 1, 3, 5, and 6**.



Click here to view a video:

NOTE:

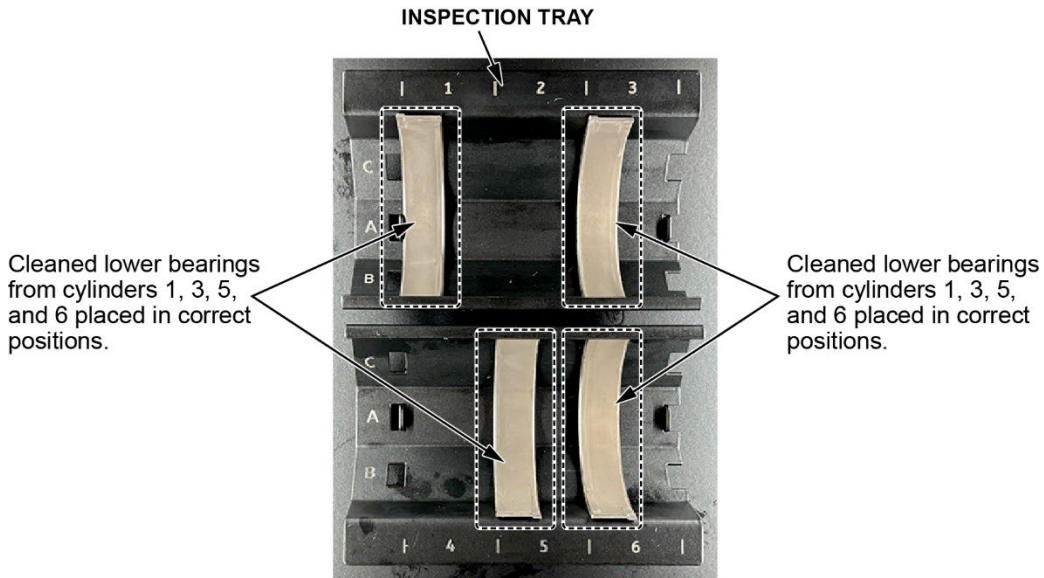
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 1 Rod Bearing Cap and Lower Bearing	Cylinder 3 Rod Bearing Cap and Lower Bearing	Cylinder 5 Rod Bearing Cap and Lower Bearing	Cylinder 6 Rod Bearing Cap and Lower Bearing
#1/At TDC	Remove	Remove	Remove	Remove

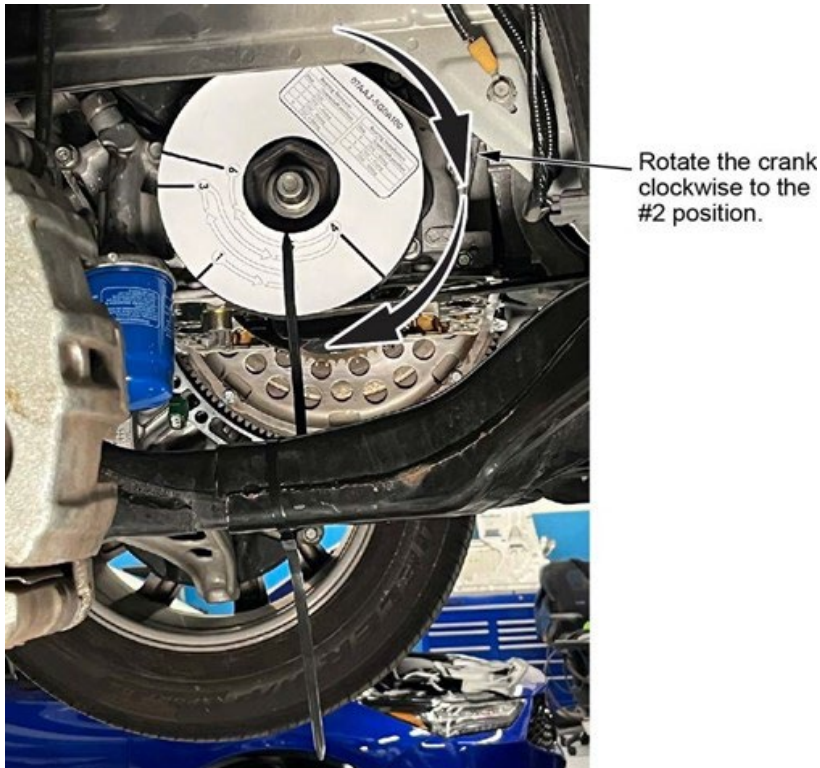
50. Place the removed lower bearings from **cylinders 1, 3, 5, and 6** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement in the tray does not matter.**



51. Rotate the crankshaft clockwise to the **#2 position** (TDC +45°).



52. Remove the **rod bearing cap** and **lower bearing** from **cylinder 2**.

NOTE:

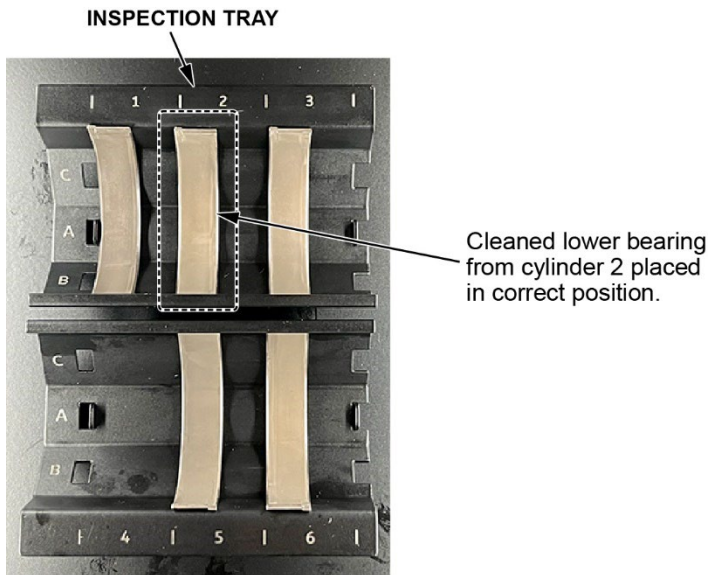
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 2 Rod Bearing Cap and Lower Bearing
#2/TDC +45°	Remove

53. Place the removed lower bearings from **cylinder 2** into the rod bearing organizer.

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement in the tray does not matter.**



54. Remove the **upper connecting rod bearing** from **cylinder 2**.



Click here to view a video:

M8 ROD HOLDER
P/N 07AAB-5G0A100

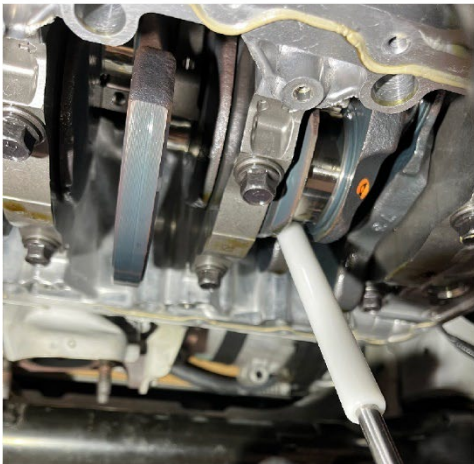


NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the rod holder tool as needed, hand tighten only!

Step/Crankshaft Position	Cylinder 2 Upper Bearing
#2/TDC +45°	Remove

EXAMPLE OF USING THE M8 ROD HOLDER:



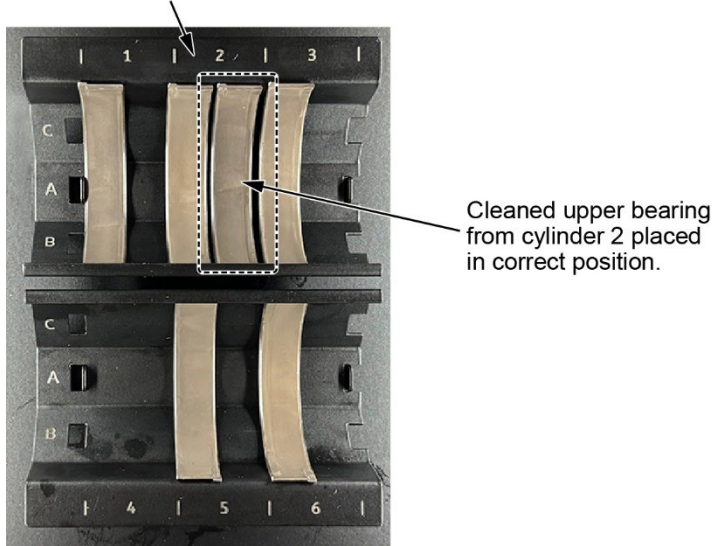
5. Thread the rod holder into the connecting rod bolt hole.
6. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
7. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
8. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
9. Using the rod holder, carefully push the connecting rod back up until it clears the crankshaft journal.
10. Remove the rod holder.
11. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

55. Place the removed **upper bearing** from **cylinder 2** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter.**

ROD BEARING ORGANIZER



56. Rotate the crankshaft counterclockwise to the **#3 position** (TDC -45°).

Rotate the crank counterclockwise to the #3 position.



57. Remove the **rod bearing cap and lower bearing** from **cylinder 4**.

NOTE:

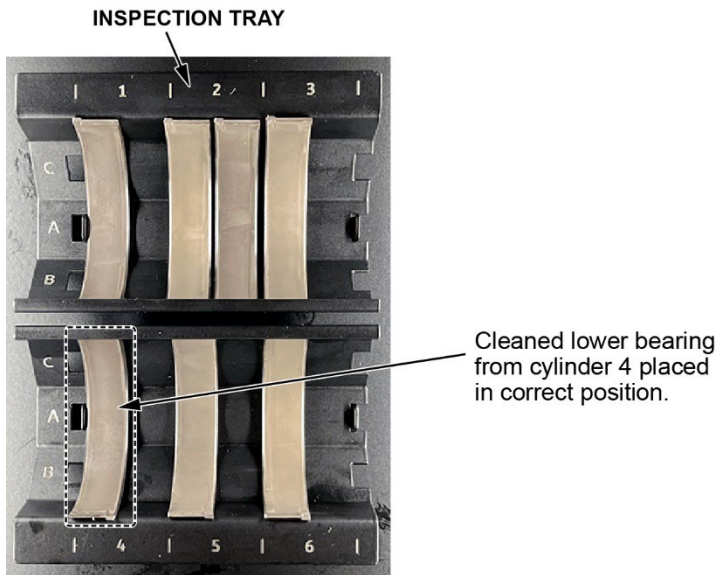
- Follow the removal of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.
- This step involves manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**

Step/Crankshaft Position	Cylinder 4 Rod Bearing Cap and Lower Bearing
#3/TDC -45°	Remove

58. Place the removed **lower bearing** from **cylinder 4** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement** in the tray **does not matter**.



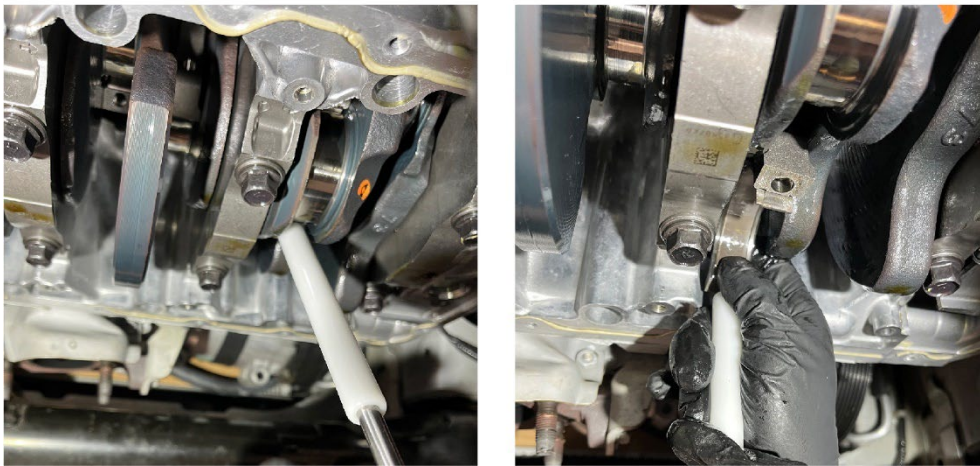
59. Remove the **cylinder 3 and cylinder 4 upper connecting rod bearings**.

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- The next steps involve manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the M8 as needed, hand tighten only!

Step/Crankshaft Position	Cylinder 3 Upper Bearing	Cylinder 4 Upper Bearing
#3/TDC -45°	Remove	Remove

EXAMPLE OF USING THE M8 ROD HOLDER:

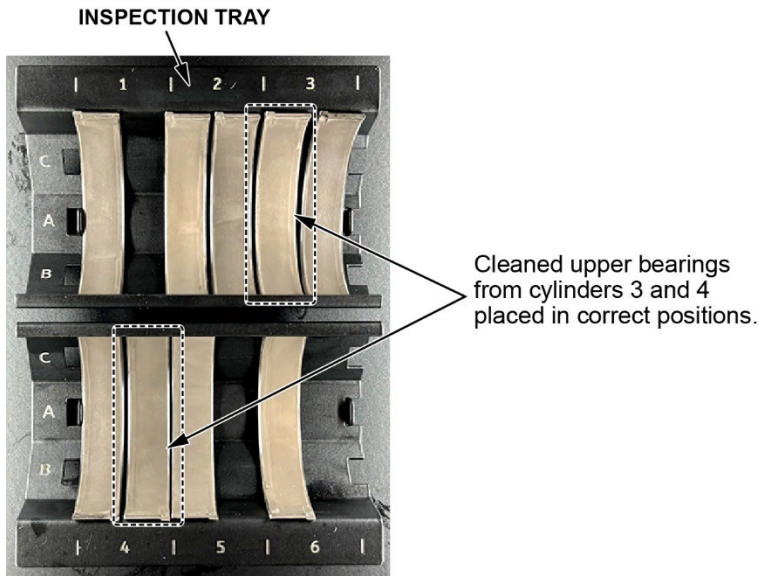


1. Thread the rod holder into the connecting rod bolt hole.
2. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
3. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
4. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
5. Using the rod holder, carefully push the **cylinder 3** connecting rod back up until it clears the crankshaft journal.
NOTE: Leave **cylinder 4** connecting rod in the lower position, **do not** push back up.
6. Remove the rod holder.
7. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

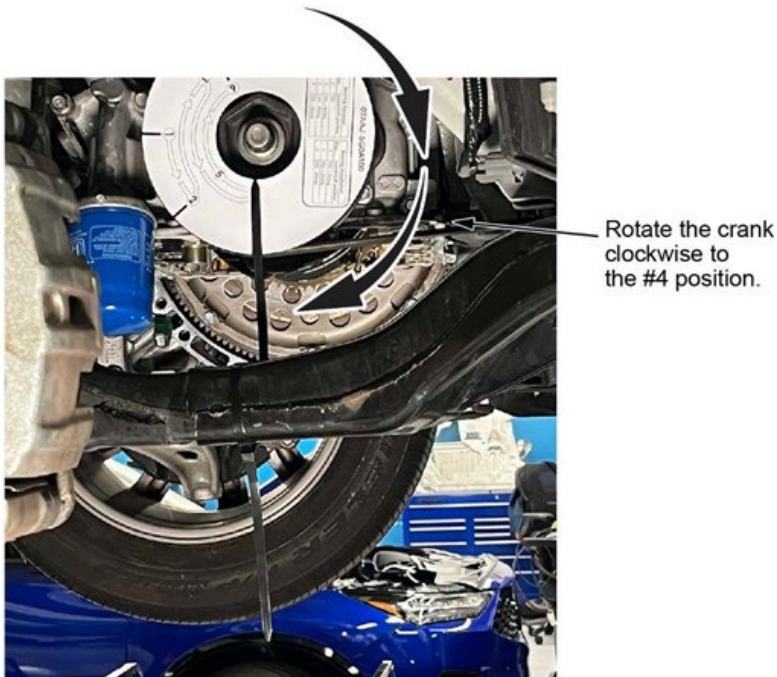
60. Place the removed **upper bearings** from **cylinder 3 and 4** into the rod bearing organizer.

NOTE:

- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing arrangement in the tray does not matter.**



61. Rotate the crankshaft clockwise to the **#4 position** (TDC +90°).



62. Remove the upper bearing from **cylinders 1, 5, and 6**.

NOTE:

- Follow the removal of the connecting rod bearings precisely to prevent damage to the crank journal and connecting rods.
- The next steps involve manually moving the piston/rod assemblies while disconnected from the crankshaft. Moving the piston/rod assembly too far in either direction can damage the piston and/or oil jet.
- Thoroughly clean the bearing with a clean shop towel after removal. No oil should be present. **Do not use any solvents.**
- Use the M8 as needed, hand tighten only!

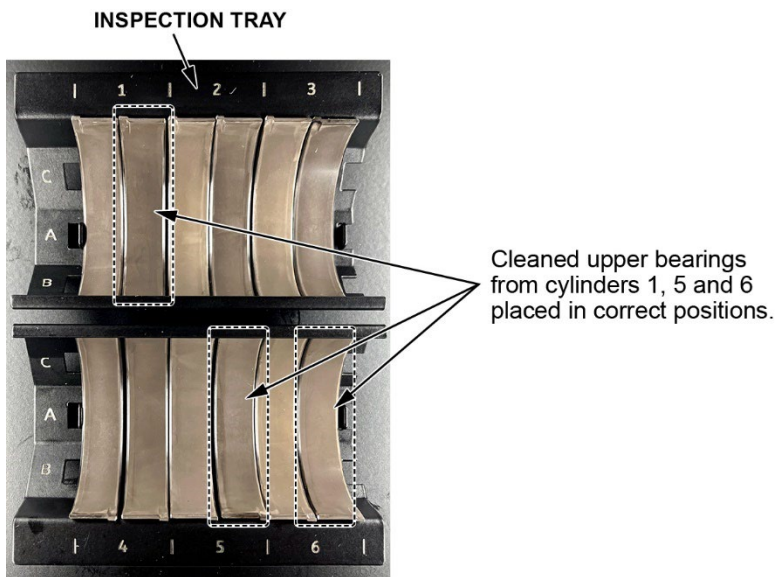
Step/Crankshaft Position	Cylinder 1 Upper Bearing	Cylinder 5 Upper Bearing	Cylinder 6 Upper Bearing
#4/TDC +90°	Remove	Remove	Remove

1. Thread the Rod holder into the connecting rod bolt hole.
2. Carefully push the connecting rod up until the connecting rod clears the crankshaft journal.
3. Swing the connecting rod to the side, then pull down just enough to gain access to the upper bearing.
4. Remove the upper bearing by sliding it to the side until it releases from the connecting rod.
5. Using the Rod holder, carefully push the connecting rod back up until it clears the crankshaft journal.
6. Remove the Rod holder.
7. Thoroughly clean the bearings with a clean shop towel to remove all oil residue. **Do not use any solvents.**

63. Place the removed **upper bearings** from **cylinders 1, 5, and 6** into the rod bearing organizer.

NOTE:

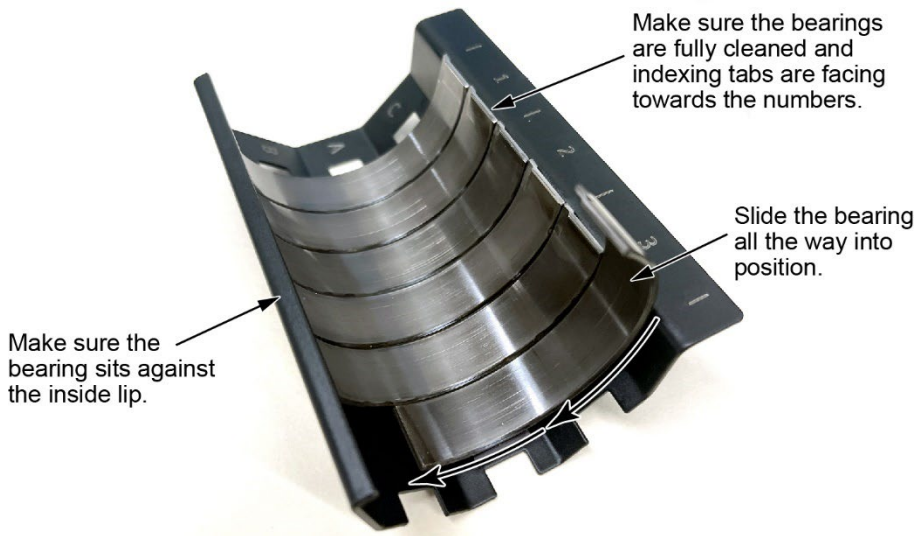
- Thoroughly clean the bearing with a clean shop towel prior to placing in the rod bearing organizer. No oil should be present. **Do not use any solvents.**
- **Place** the removed bearings into the rod bearing organizer at the correct position. For example, the **cylinder 1 bearings** should be in the **#1 slot** in the **tray**. **Upper and lower bearing** arrangement in the tray **does not matter**.



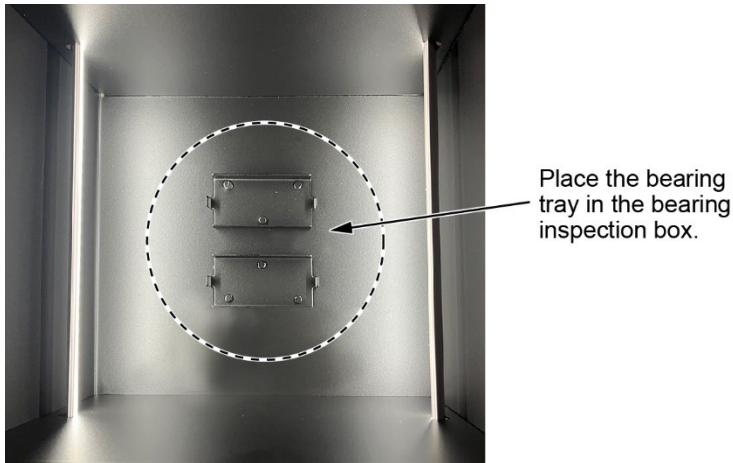
64. Make sure the bearings are fully seated and level with the edge of the rod bearing organizer.

NOTE:

- The bearing's indexing tab should be lined up at the numbers of the tray.
- The flat edge of the bearing should be inside of the lip on the rod bearing organizer.
- All bearings should be fully seated in the inspection tray.



65. Remove the bearing photo box cover and place the bearing organizers in.

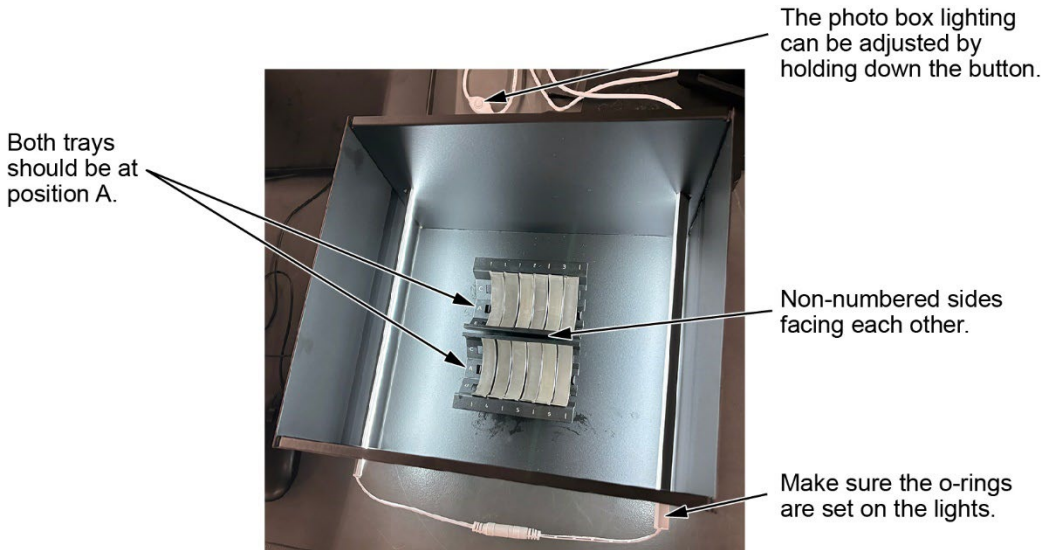


66. Confirm the following on the bearing inspection box:

1. Lights at the brightest setting.

NOTE: The light brightness can be adjusted by holding the button.

2. Both bearing organizers are in position A with non-numbered sides facing each other.
3. The O-rings are set on the lights to prevent an outside light source.



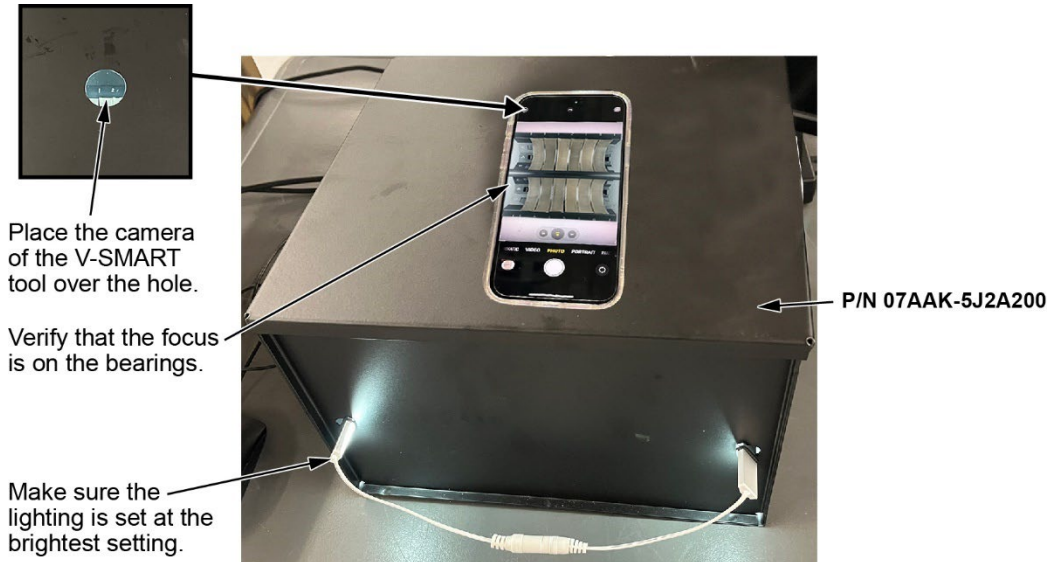
67. Login to the V-SMART application.

NOTE: Scanning the VIN will return to where you last left off at.

68. Using the V-SMART application, follow the instructions on the application to take bearing photos in positions A, B, and C. Follow the prompts when submitting the photos.

NOTE:

- Use the camera tap focus for a clear image.
- Any unclear images will not be accepted.
- Follow the V-SMART tool prompts after photo submission.



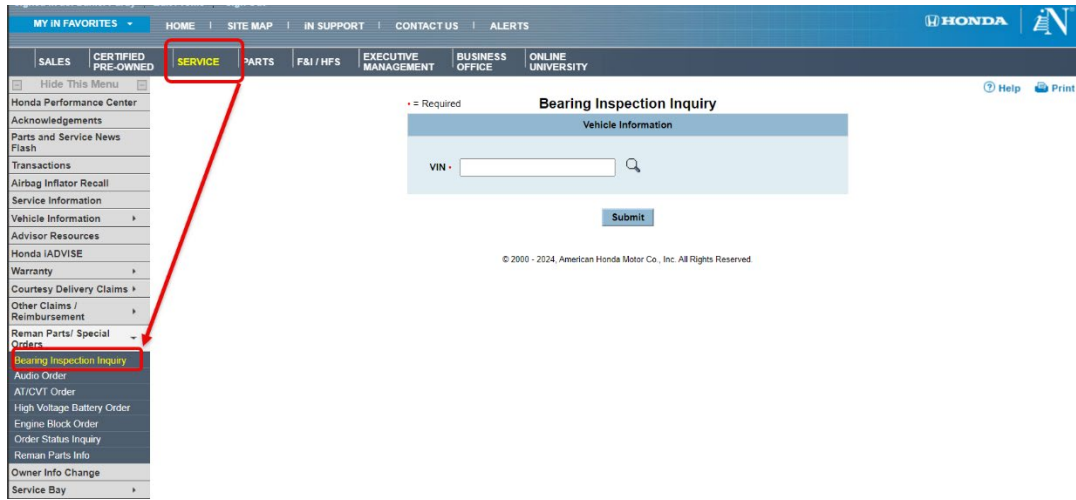
When taking the photos:

Tap here to focus camera.

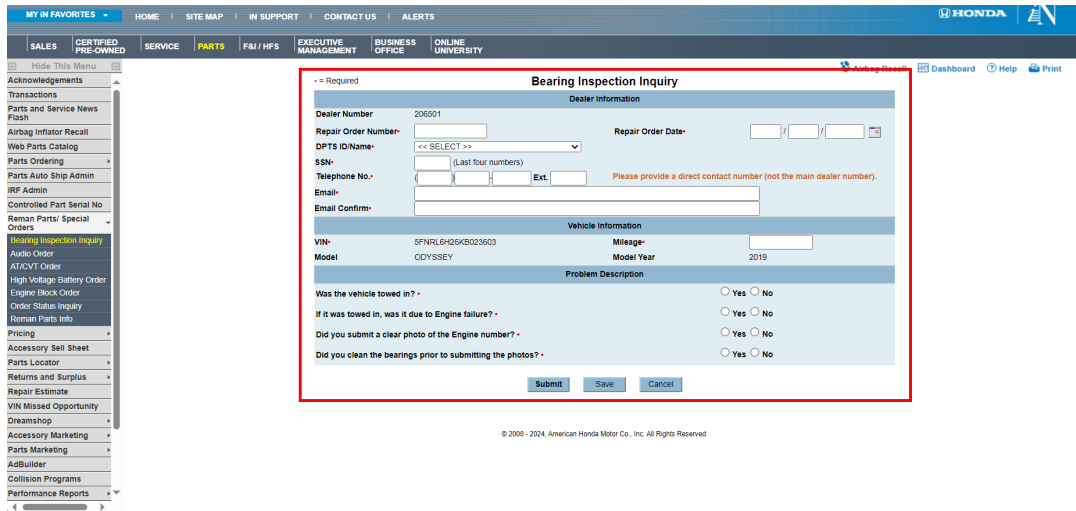


69. Create a Bearing Inspection Inquiry.

1. Log into iN.
2. Select SERVICE > REMAN PARTS / SPECIAL ORDERS > BEARING INSPECTION INQUIRY
3. Select the BEARING INSPECTION INQUIRY.
4. Input the correct VIN.



5. Input all vehicle information to create a case.



6. A 7-digit case reference number will be generated.

NOTE: Note this number on the RO for future reference.

7. Call the **Bearing Inspection Inquiry Team** at **(800) 824-6632**. Press **9** to be routed to the correct department (**do not contact TECH LINE for this**). Give the answering agent the **7-digit reference number** for a repair direction.

NOTE:

- MAKING THE INCORRECT SELECTION WILL RESULT IN INCREASED WAIT TIMES.
- **DO NOT** contact Tech Line for any inquires to this safety recall. You must call the **Bearing Inspection Inquiry Team** at **(800) 824-6632 (Select Option #9)** for all inquiries and repair direction.

70. The bearing inspection agent will give the **Repair Direction**. You will receive instructions via email on the repair method that includes the unique warranty code and the bearing sizes with their specific locations, if applicable. Parts will be shipped to your dealership. Make sure to advise the parts department with a copy of the RO.

NOTE: Link to CONTENT REFERENCE, ([Click HERE](#)).


REPAIR #1 INSTALL RECOMMENDED BEARINGS

NOTE: DO NOT contact Tech Line for any inquires to this safety recall. You must call the Bearing Inspection Inquiry Team at (800) 824-6632 (**Select Option #9**) for all inquiries and repair direction.

1. Follow the **Repair Type** instructions on the emailed Bearing Inspection Repair Direction sheet. Make sure the VIN matches the vehicle.

NOTE:

- Follow the **Repair Type** instructions exactly as recommended.
- Use the **Warranty Verification Code** for the warranty claim.

 Bearing Inspection Repair Direction Date: 2024-02-01
Time: 18:32
Page: 1

Car Information:

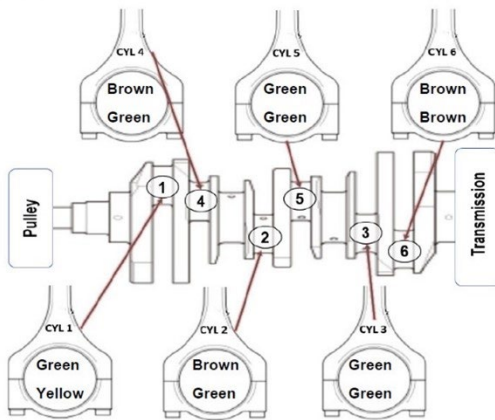
Case #: 1234567	VIN: [REDACTED]	Exterior Color: SLATE SILVER METALLIC
Dealer #: 1234567	EIN: [REDACTED]	Interior Color: EBONY SLATE SILVER METALLIC
	Model: [REDACTED]	Year: 2015

Warranty Verification Code: [REDACTED]

Failed Part Number: [REDACTED]

Repair Type: Rod Bearings

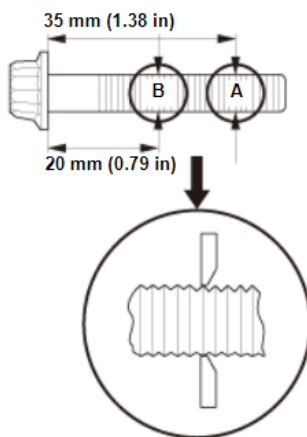
Bearing Information:



2. Inspect the connecting rod bolts.

- Measure the diameter of each connecting rod bolt at point A and point B.
- If the difference in diameter is out tolerance, replace the connecting rod bolt.
- After calculating the difference in diameter between point A and point B.

Difference in Diameter Specification: 0–0.1 mm (0–0.004 in.)

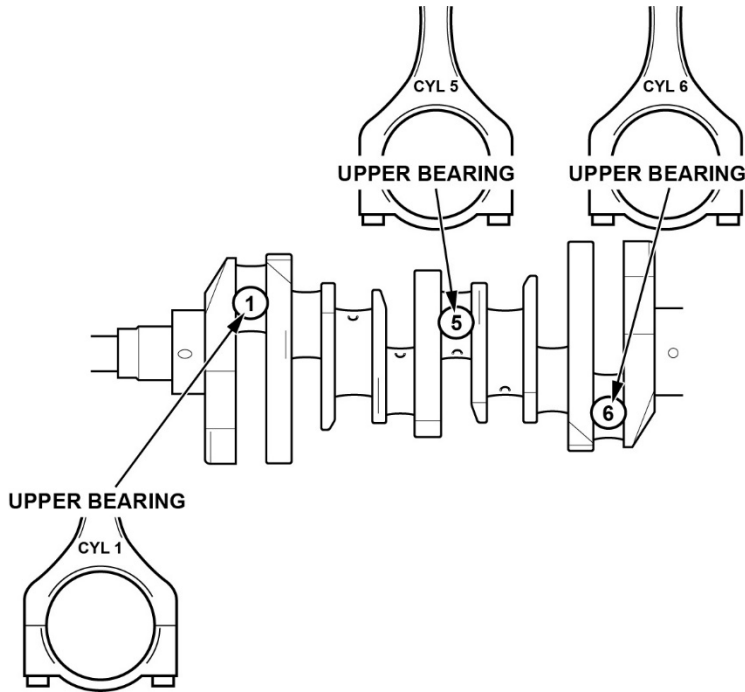


3. Apply a light coating of oil to all connecting rod journals prior to installing the remainder of the steps.
4. While the crankshaft is still at crank angle gauge **position #4** (TDC +90°), install the **upper bearing** to the connecting rod for **cylinders 1, 5, and 6**.

NOTE:

- Make sure the bearing indexing tabs are properly oriented during installation.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 1 Upper Bearing	Cylinder 5 Upper Bearing	Cylinder 6 Upper Bearing
#4/TDC +90°	Install	Install	Install

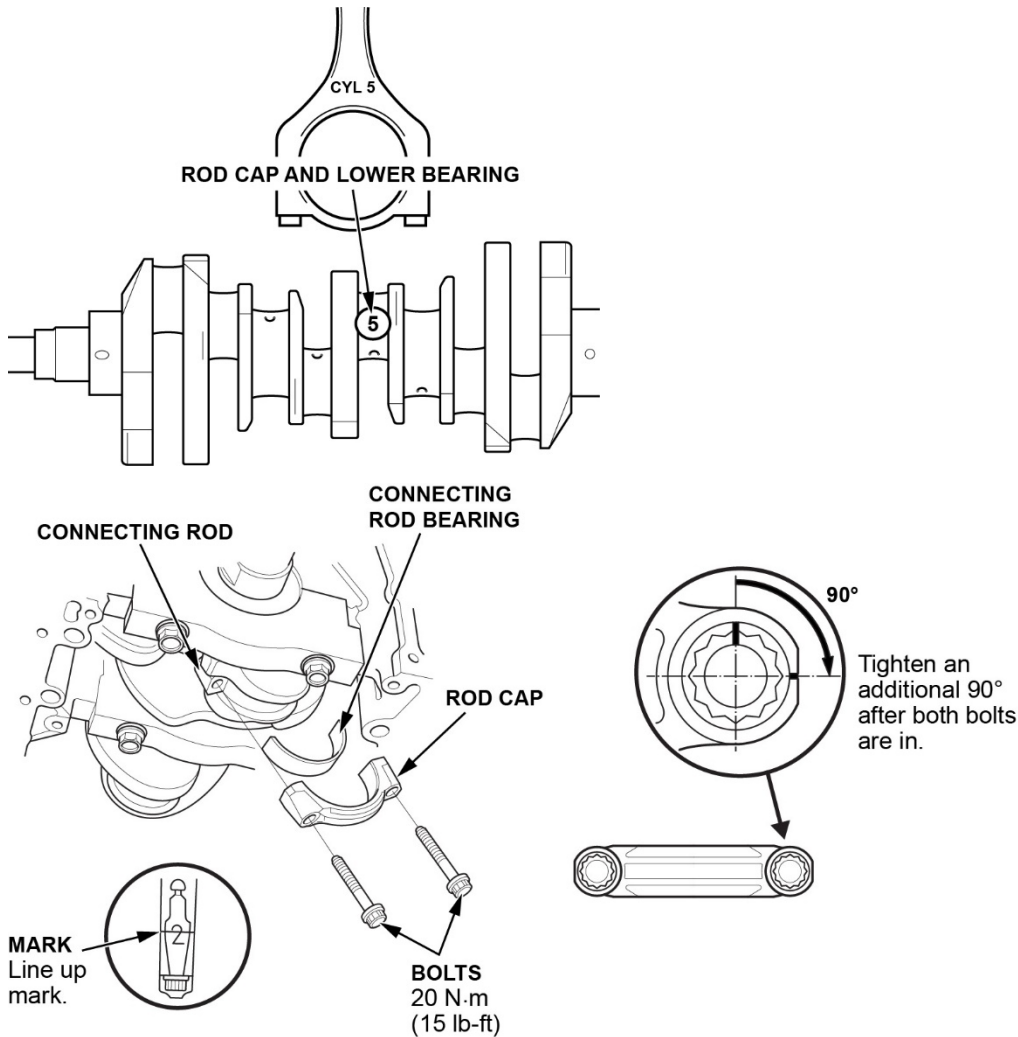


5. Install the **connecting rod cap and lower bearing** to the connecting rod **for cylinder 5**.

NOTE:

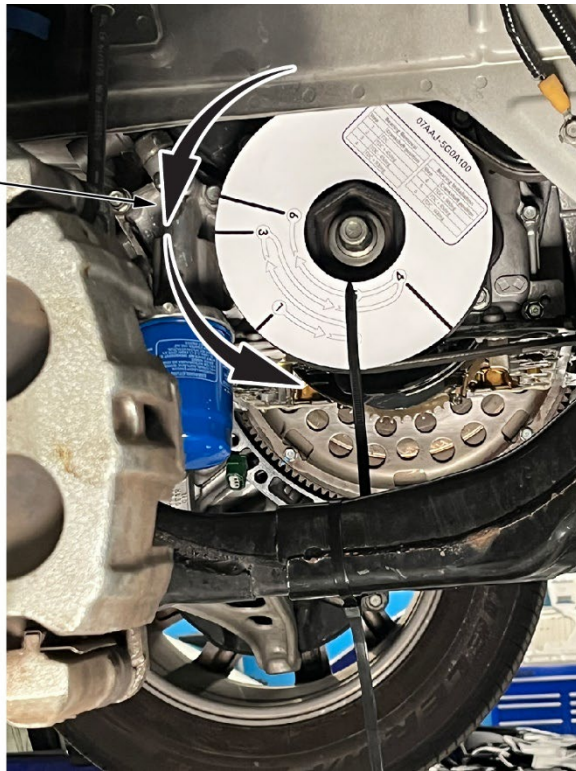
- Make sure the bearing indexing tabs are properly oriented during installation.
- Apply new engine oil to the bolt threads and bolt flanges.
- If you tightened the connecting rod bolt beyond the specified angle, remove and inspect the connecting rod bolt. **Do not loosen** it back to the specified angle.
- Use a commercially available torque angle meter.
- Use the M8 Rod Holder tool as needed.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 5 Rod Cap and Lower Bearing
#4/TDC +90°	Install



6. Rotate the crankshaft counterclockwise to crank angle gauge **position #5** (TDC +45°).

Rotate the crank counter-clockwise to the #5 position.

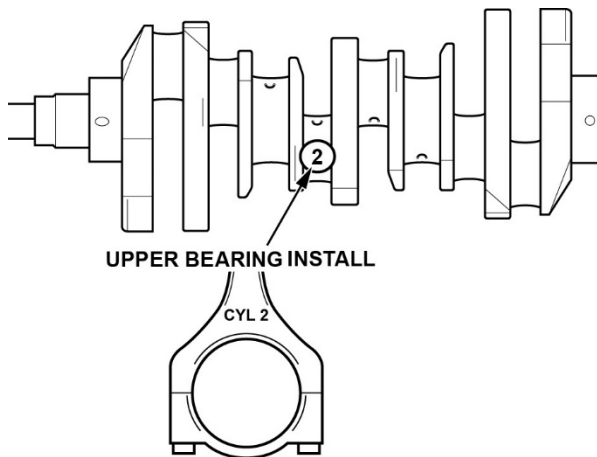


7. Install the **upper bearing** to the connecting rod **for cylinder 2**.

NOTE:

- Make sure the bearing indexing tabs are properly oriented during installation.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 2 Upper Bearing
#5/TDC +45°	Install

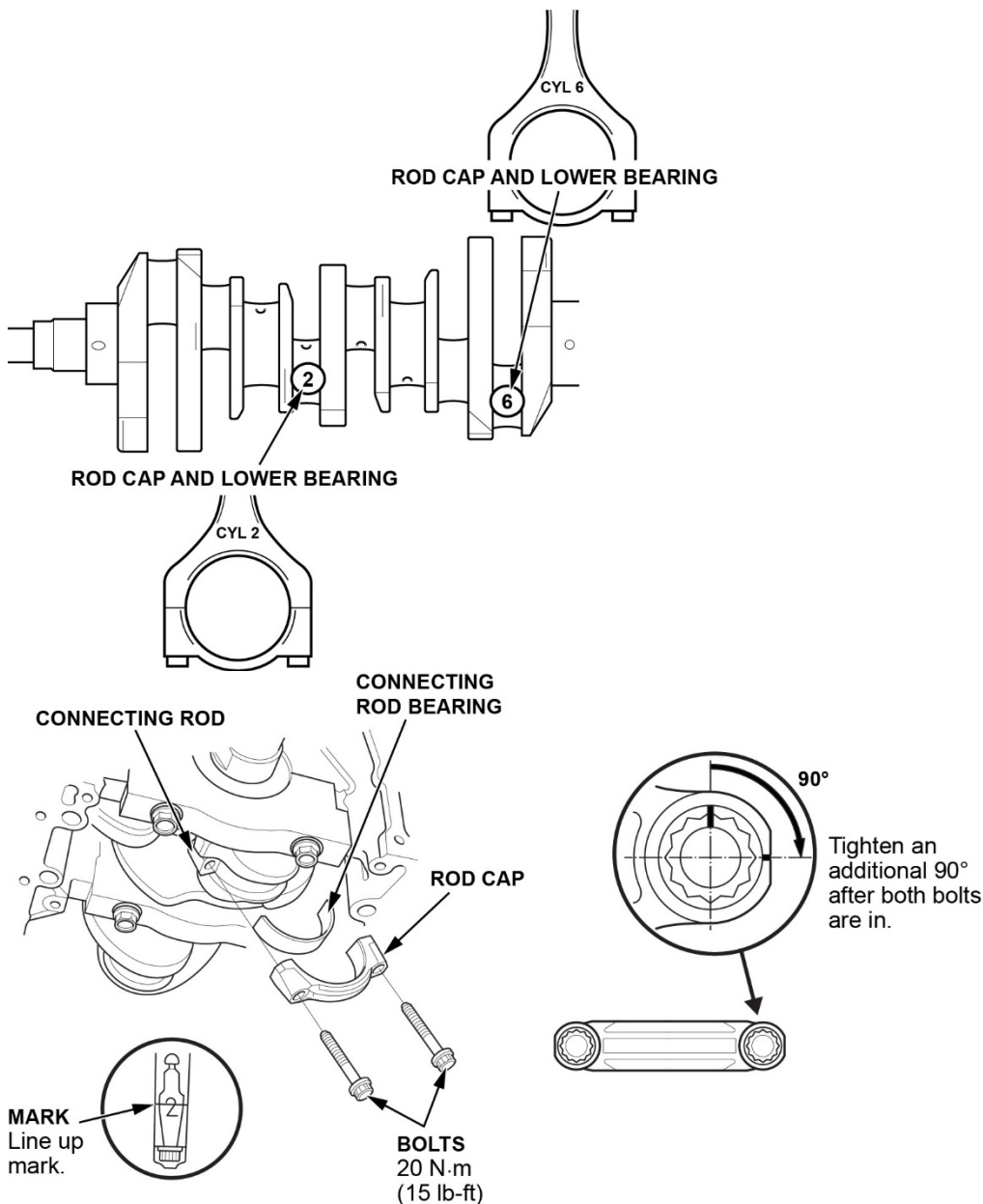


8. Without rotating the crank, install the **rod cap and lower bearing** to the connecting rod **for cylinders 2 and 6**.

NOTE:

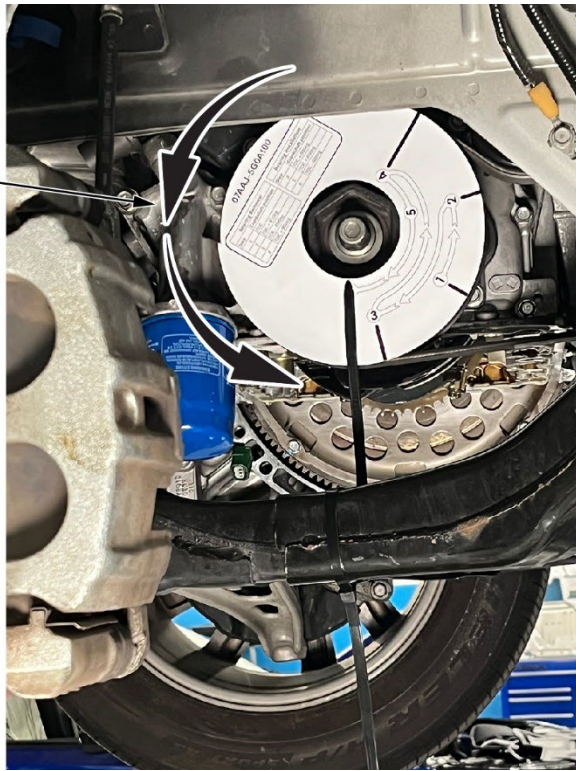
- Make sure the bearing indexing tabs are properly oriented during installation.
- Apply new engine oil to the bolt threads and bolt flanges.
- If you tightened the connecting rod bolt beyond the specified angle, remove and inspect the connecting rod bolt. **Do not loosen** it back to the specified angle.
- Use a commercially available torque angle meter.
- Use the M8 Rod Holder tool as needed.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 2 Rod Cap and Lower Bearing	Cylinder 6 Rod Cap and Lower Bearing
#5/TDC +45°	Install	Install



9. Rotate the crankshaft counterclockwise to crank angle gauge **position #6** (TDC -60°).

Rotate the crank counterclockwise to the #6 position.

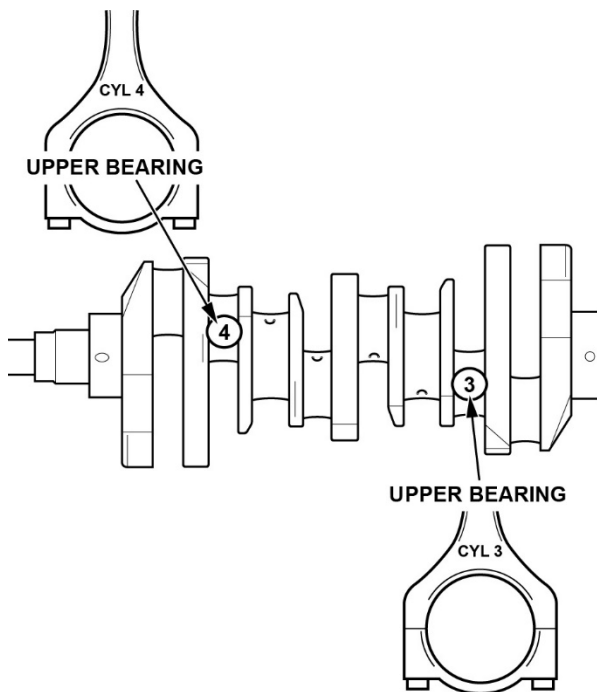


10. Install the **upper bearing** to the connecting rod for **cylinders 3 and 4**.

NOTE:

- Make sure the bearing indexing tabs are properly oriented during installation.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 3 Upper Bearing	Cylinder 4 Upper Bearing
#6/TDC -60°	Install	Install

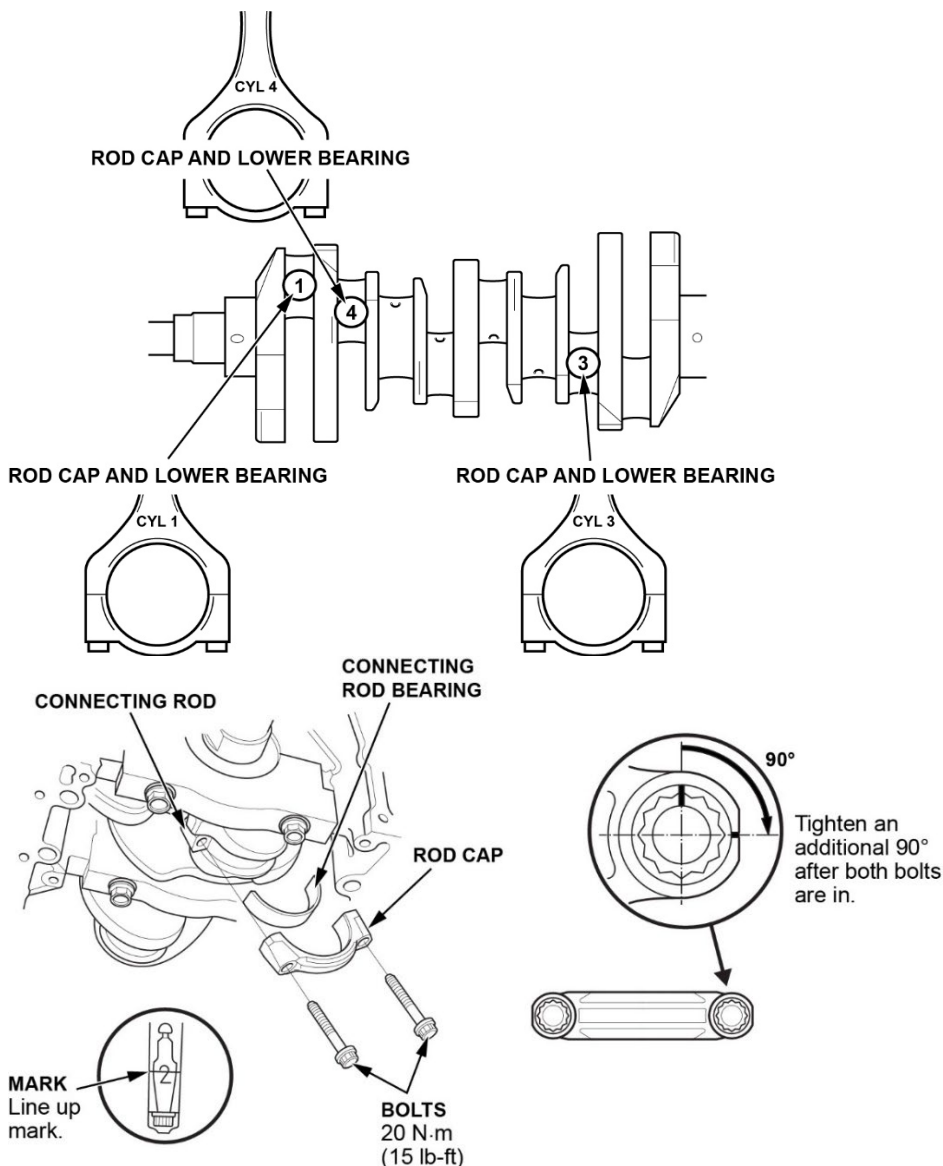


11. Without rotating the crank, install the **rod caps and lower bearings** to the connecting rod **for cylinder 1**. Then, **install the rod cap and lower bearing** to the connecting rod **for cylinders 3 and 4**.

NOTE:

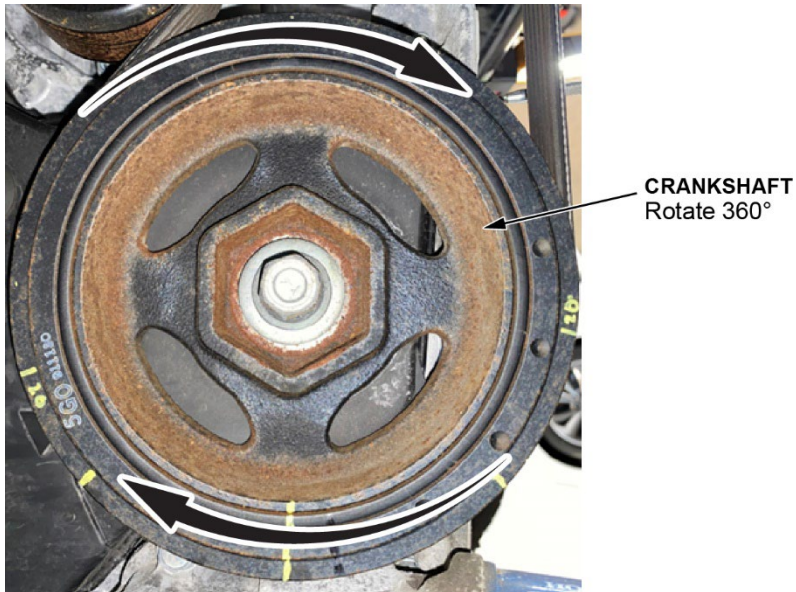
- Make sure the bearing indexing tabs are properly oriented during installation.
- Apply new engine oil to the bolt threads and bolt flanges.
- If you tightened the connecting rod bolt beyond the specified angle, remove and inspect the connecting rod bolt. **Do not loosen** it back to the specified angle.
- Use a commercially available torque angle meter.
- Use the M8 Rod Holder tool as needed.
- Follow the install of the connecting rod steps precisely to prevent damage to the crank journal and connecting rods.

Step/Crankshaft Position	Cylinder 1 Rod Cap and Lower Bearing	Cylinder 3 Rod Cap and Lower Bearing	Cylinder 4 Rod Cap and Lower Bearing
#6/TDC -60°	Install	Install	Install

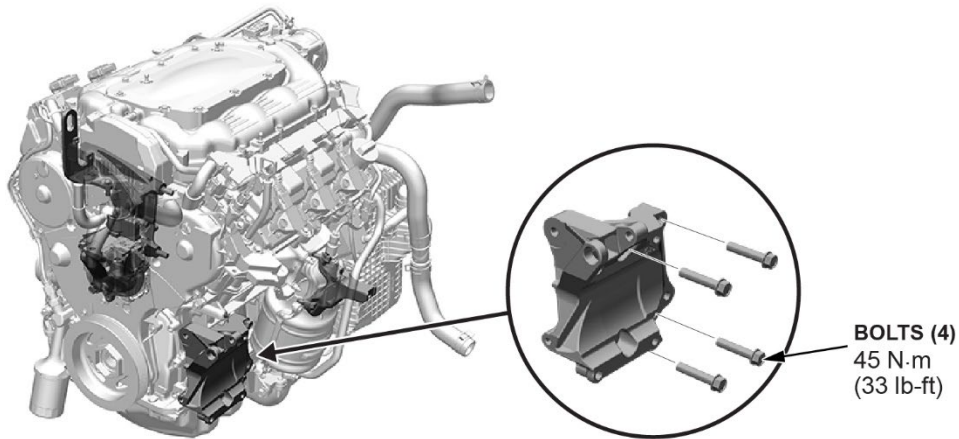


12. Remove the crank angle gauge and zip tie.

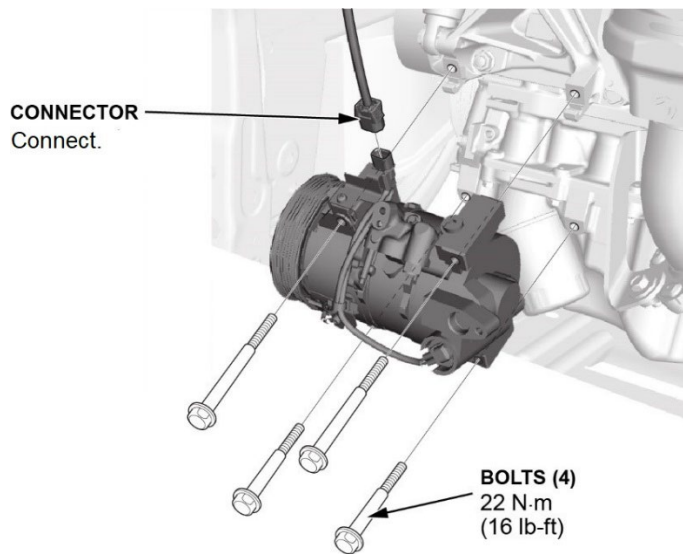
- Lower the vehicle and remove the piston stoppers.
- Rotate the crankshaft **360°** to check for binding of the connecting rod bearings.



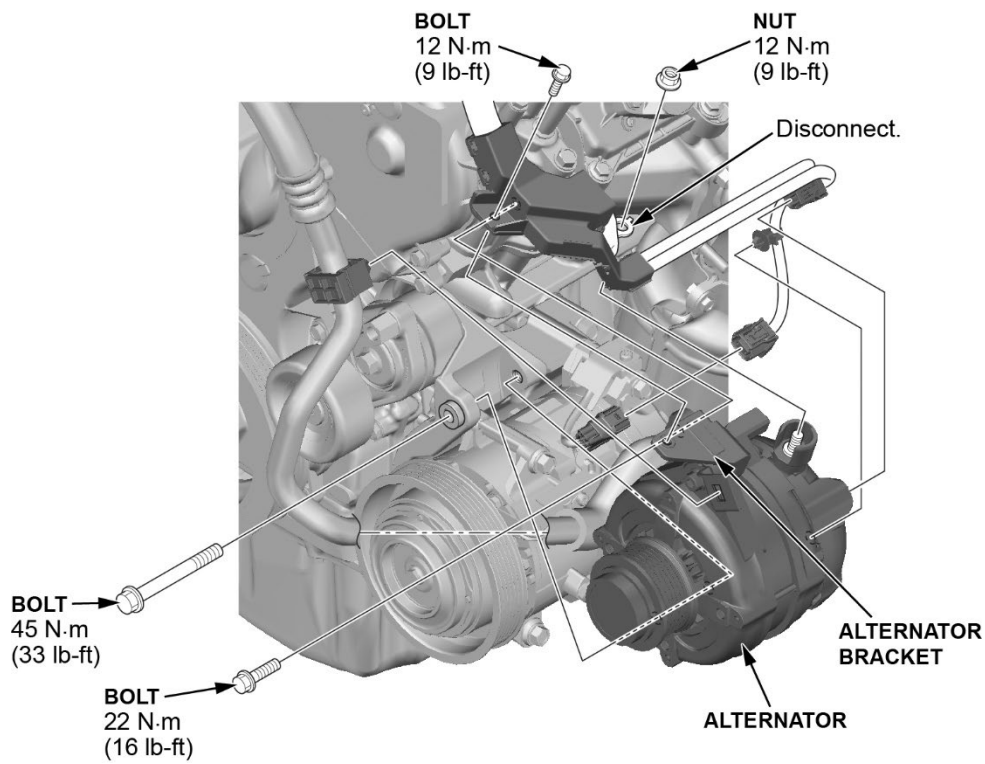
- INSPECTION B ONLY:** Install the A/C compressor bracket.



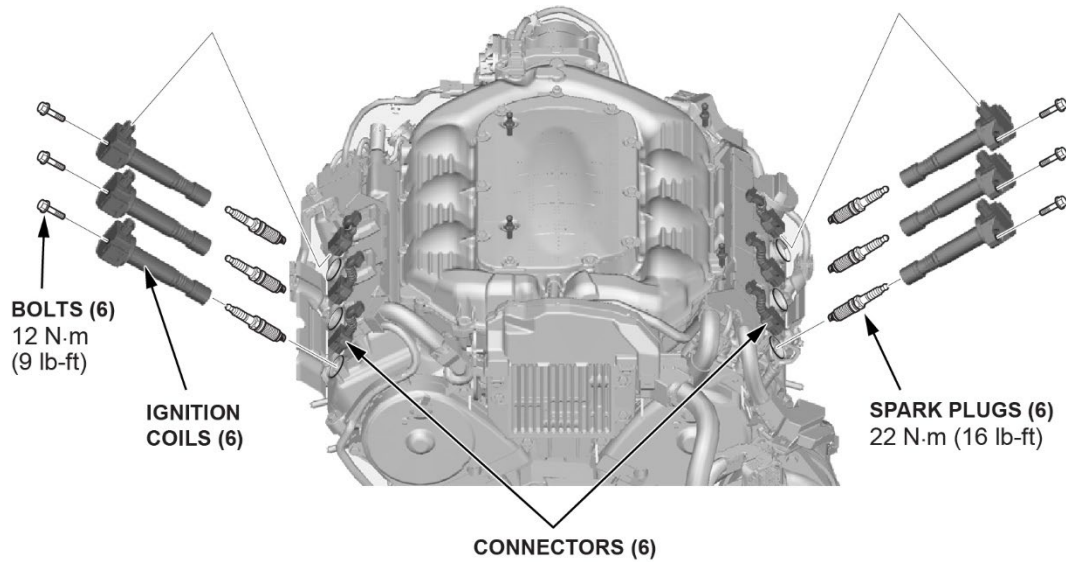
- INSPECTION B ONLY:** Install the compressor.



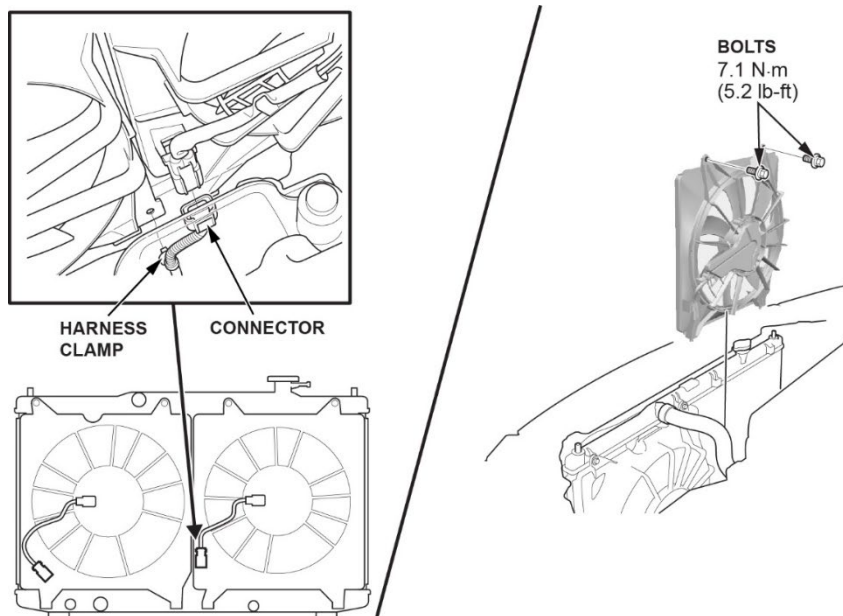
17. **INSPECTION B ONLY:** Install the alternator.



18. Install the coil connectors, ignition coils, and spark plugs.

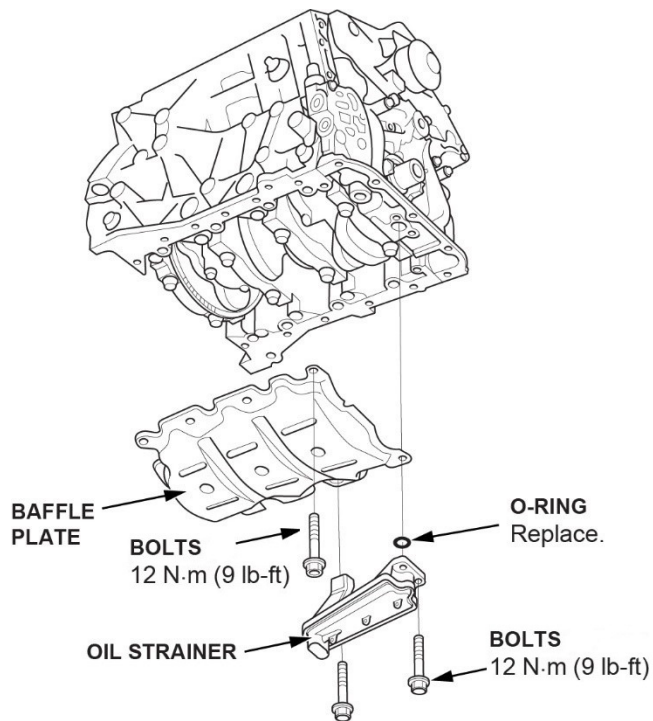


19. **INSPECTION B ONLY:** Connect the passenger side radiator fan connectors, and then install the passenger side radiator fan.



20. Raise the vehicle.

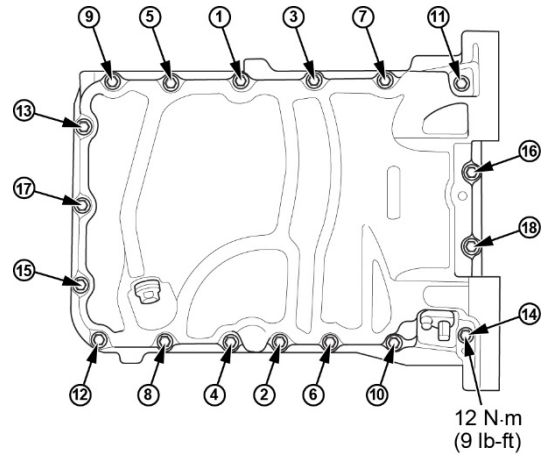
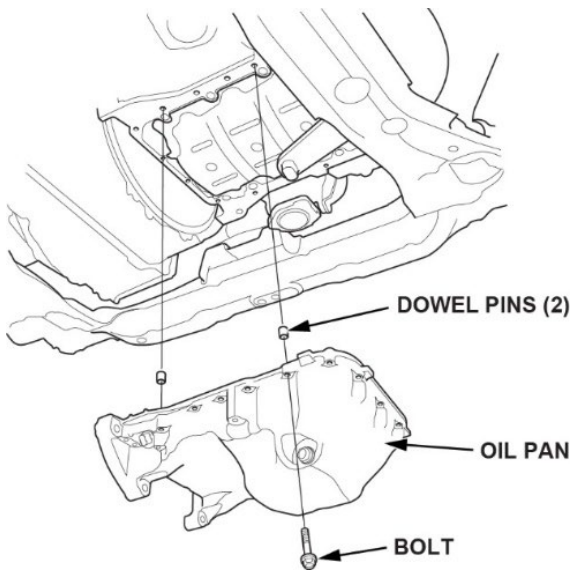
21. Install the oil strainer and baffle plate.



22. Install the engine oil pan.

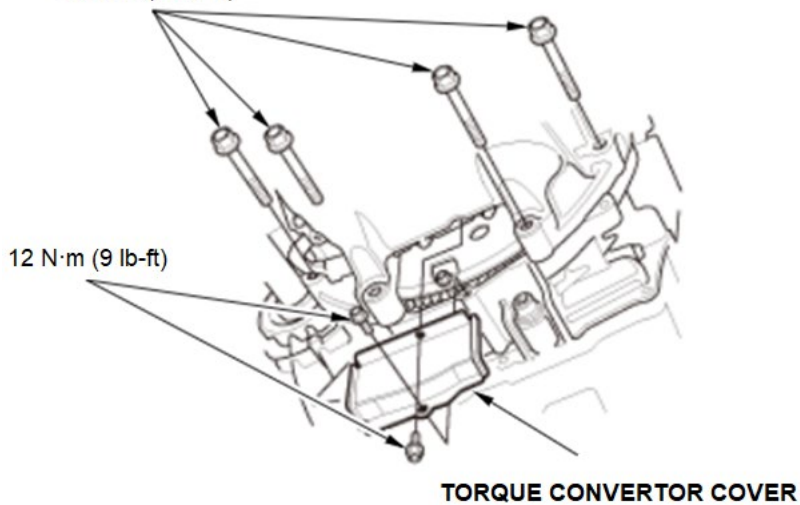
NOTE:

- **Apply** a liquid sealing gasket (Hondabond HT Silicone Gasket, P/N 08718-0004) to the oil pan mating surface of the engine block and inside edge of the threaded bolt holes.
- Torque the bolts to **12 N·m (9 ft-lb)**.
- **Wait** at least **30 minutes** before filling the engine with oil.
- **Do not** run the engine for at least **3 hours** after installing the oil pan.
- **Follow** the bolt installation sequence.

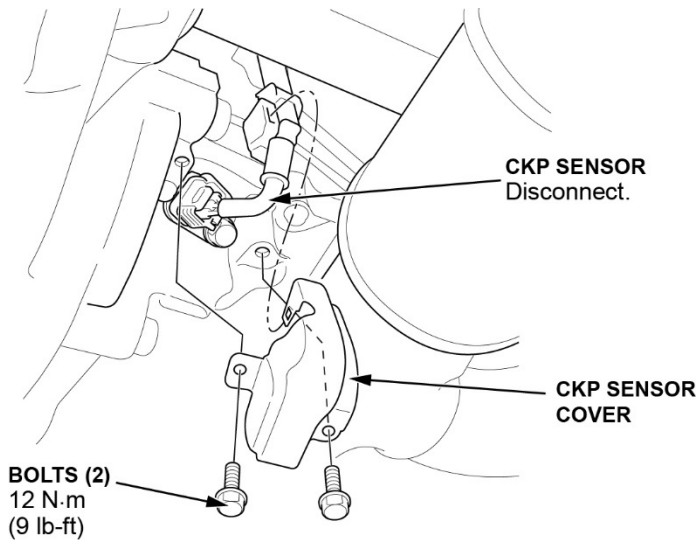


23. Install the torque converter cover and the 4 lower transmission bolts.

MOUNTING BOLTS (4)
75 N·m (55 lb-ft)



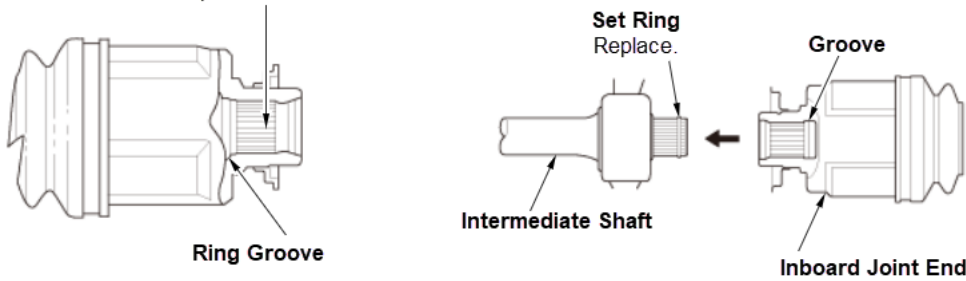
24. Install the CKP sensor cover and disconnect the CKP sensor.



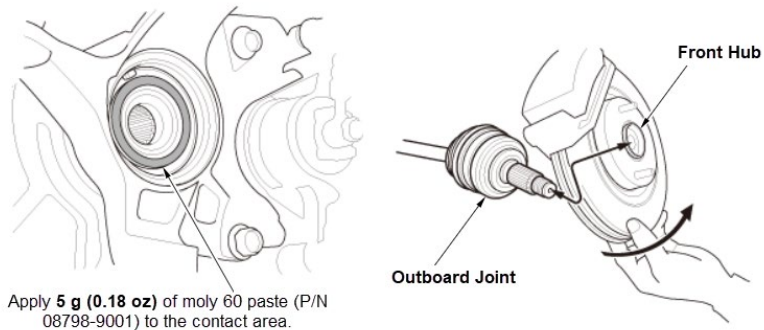
25. **INSPECTION B ONLY:** Install the passenger side driveshaft.

1. Apply **2.0–3.0 g** of molybdenum grease to the whole splines surface of the right driveshaft.
2. After applying grease, remove the grease from the splined grooves at intervals of 2-3 splines and from the set ring groove so that air can bleed from the intermediate shaft.
3. Install a new set ring.
4. Insert the inboard joint end of the driveshaft onto the intermediate shaft until the set ring locks in the groove.

Apply **2.0-3.0 g (0.071-0.106 oz)** of super high temperature urea grease (P/N 08798-9002) to the whole splined surface.



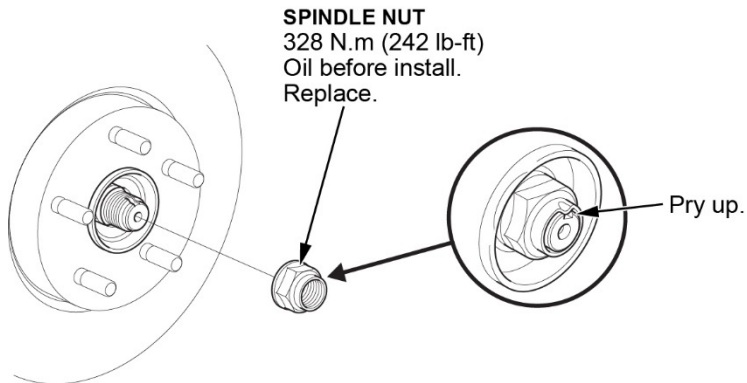
5. Apply about **3.0 g** of molybdenum grease to the contact area of the outboard joint and the front wheel bearing.
6. Install the outboard joint into the front hub on the knuckle.



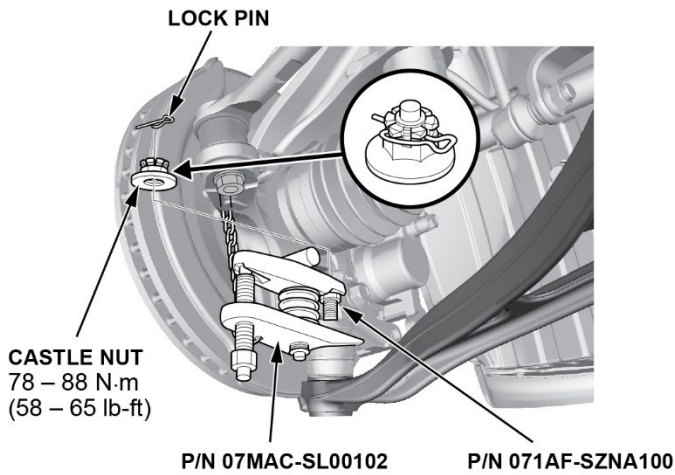
7. Install the new spindle nut.

NOTE:

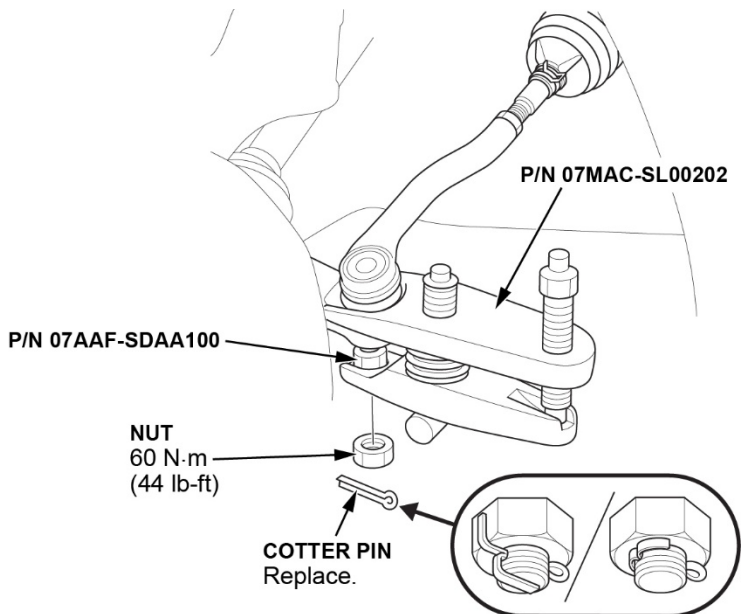
- Apply a small amount of engine oil to the seating surface of the new spindle nut.
- Use a drift to stake the spindle nut shoulder against the driveshaft.
- Be careful not to make a crack on the spindle nut when staking.



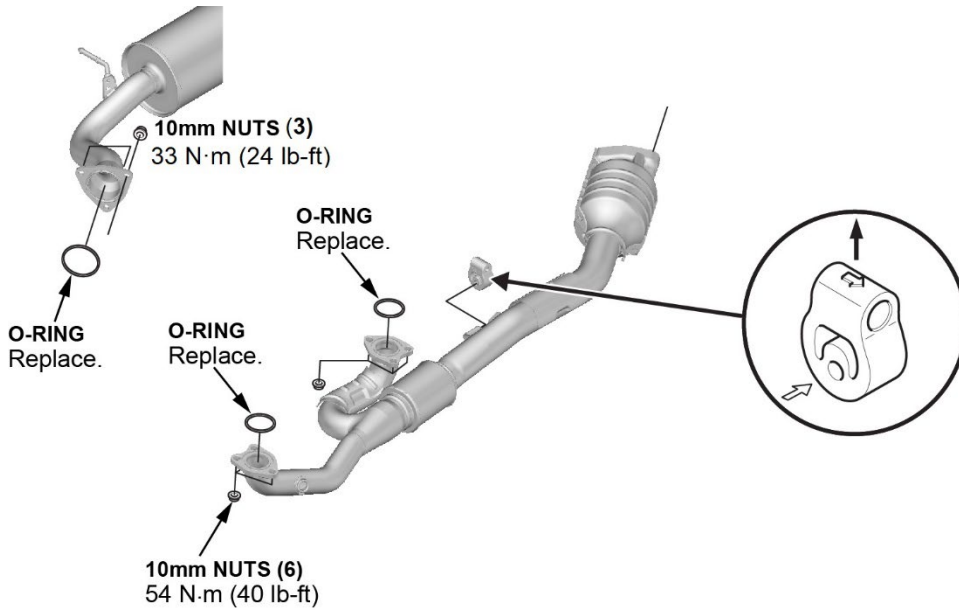
26. Connect the passenger's side lower knuckle ball joint.



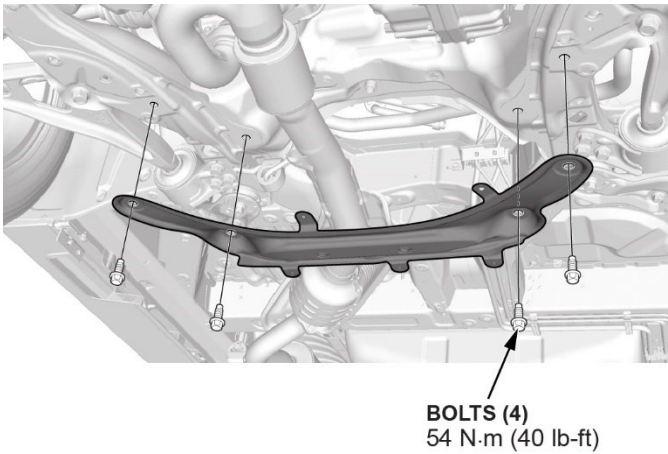
27. Connect the tie-rod end ball joint.



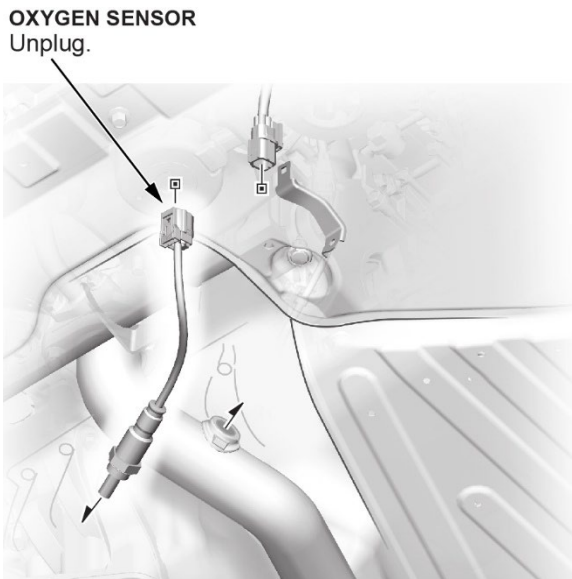
28. Install the A-pipe.



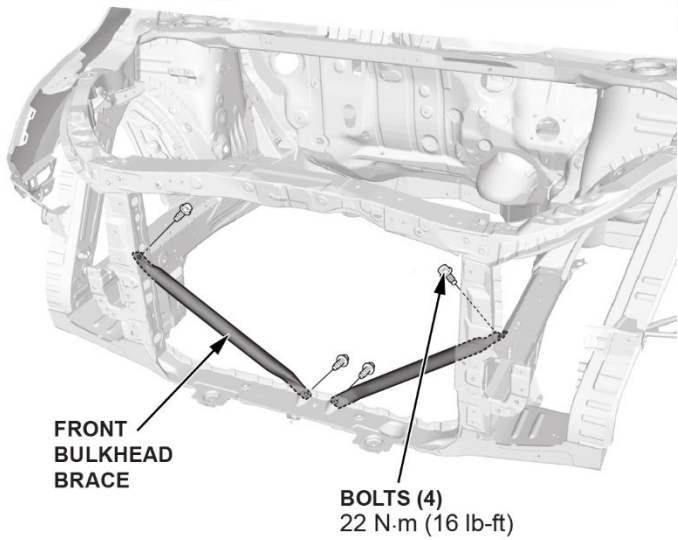
29. Install the sub frame stiffener plate.



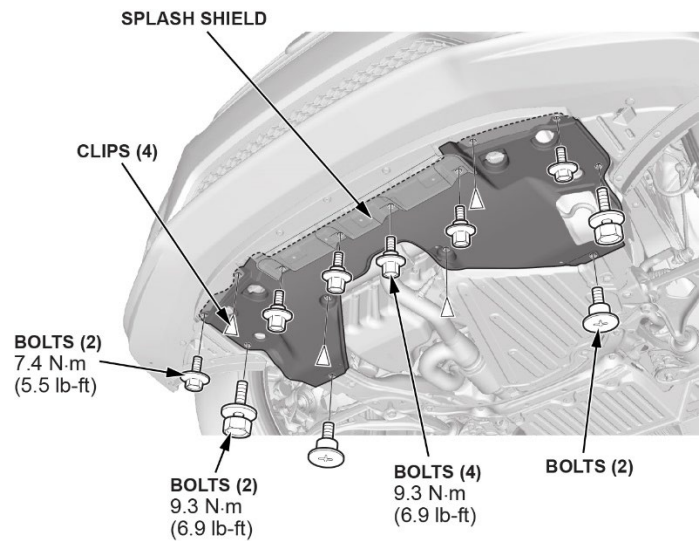
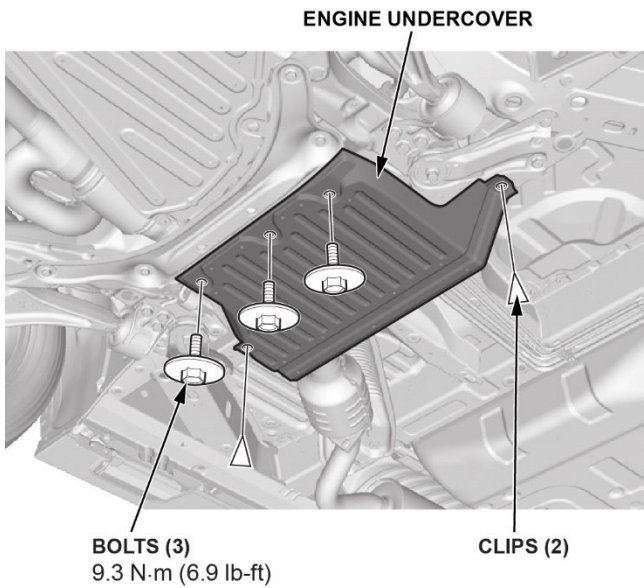
30. Plug in the bank 2 oxygen sensor.



31. Install the bulkhead brace.



32. Install the engine undercover and the lower splash shield.

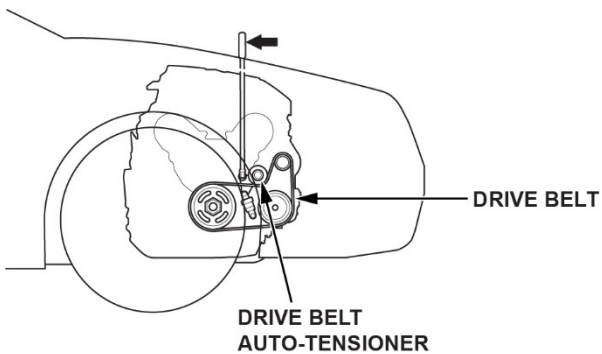


33. Replace the washer and install the oil drain bolt, **40 N·m (30 lb-ft)**.

34. Install the passenger side front wheel, **127 N·m (94 lb-ft)**.

35. Lower the vehicle.

36. **INSPECTION B ONLY:** Install the drive belt.



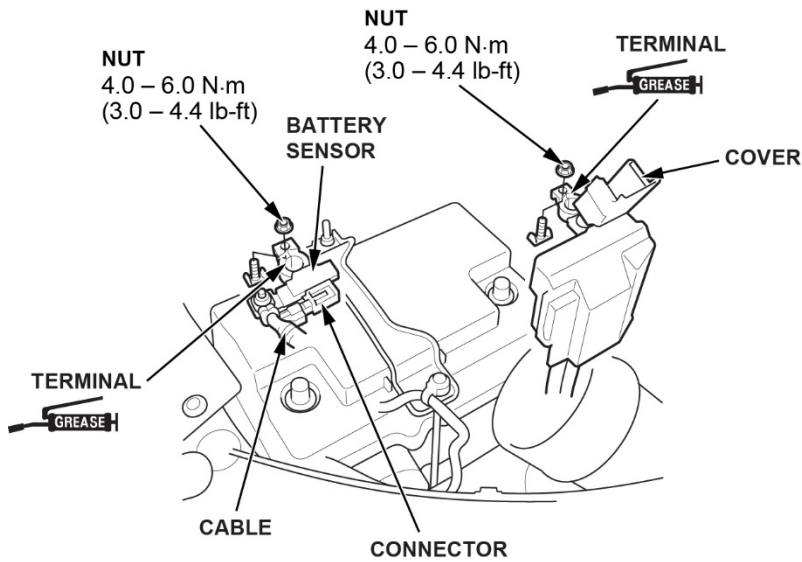
37. Install the oil dipstick and fill the engine oil.

Fill: 5.1 L (5.4 US qt.)

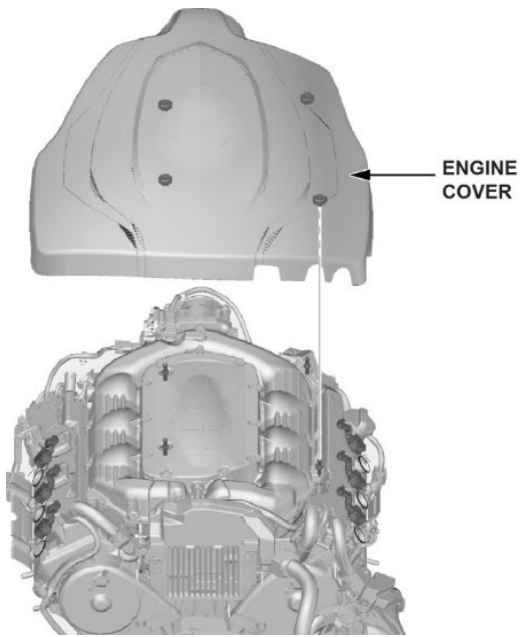
38. Connect the 12-volt battery.

NOTE:

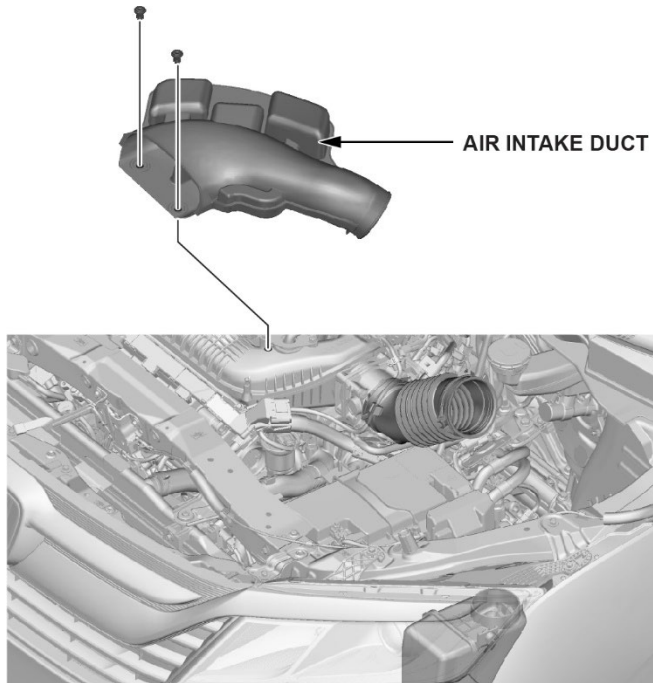
- Battery terminal installation on this vehicle is critical. Failure to follow the terminal installation or inspection procedures could cause electrical problems, stalling, and/or DTCs to set. Do not over torque the terminals, and do not use an impact gun.
- Battery terminal installation must be level or below the post.



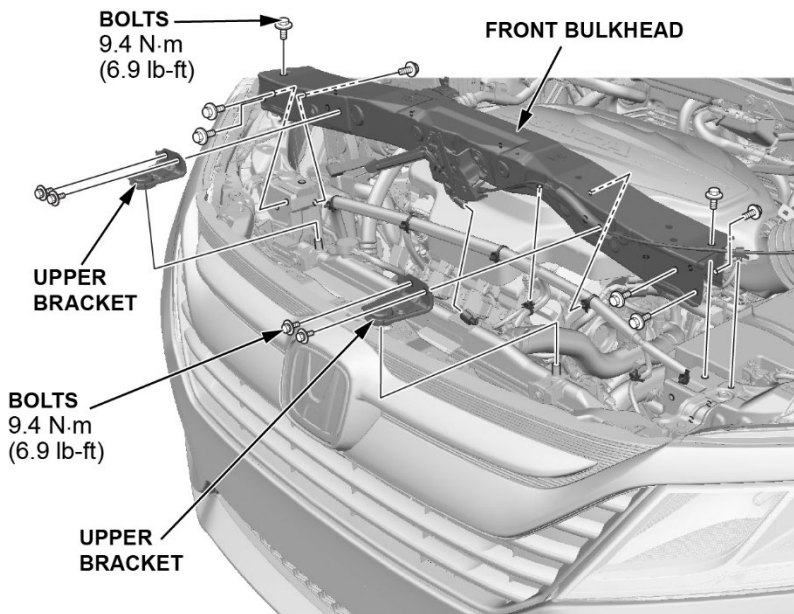
39. Install the engine cover.



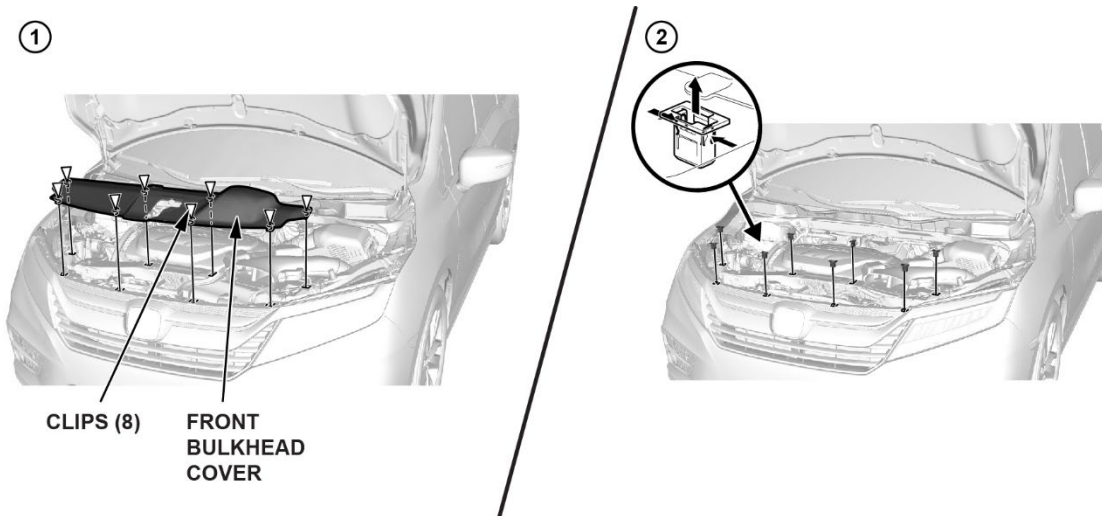
40. Install the air intake duct.



41. Install the front bulkhead and upper bracket.



42. Install the front bulkhead cover.



43. Make sure the vehicle has sat for at least **3 hours** from the time the oil pan was reinstalled.

NOTE: This is to make sure the bonding on the oil pan has completely cured.

44. Connect to the i-HDS.

45. Do a PCM reset.

1. Select the **PGM-FI** system with i-HDS.
2. Reset the PCM with the i-HDS while the engine is stopped.
3. Turn the vehicle to the OFF (LOCK) mode.
4. Turn the vehicle to the ON mode and wait **30 seconds**.
5. Turn the vehicle to the OFF (LOCK) mode and disconnect the i-HDS from the DLC.

46. Do the CKP Pattern clear and learn.

1. Select **CRANK PATTERN** in the **ADJUSTMENT MENU** with the i-HDS.
2. Select **CRANK PATTERN CLEAR**, and clear the CKP pattern.
3. Select **CRANK PATTERN LEARNING**, and follow the screen prompts.
4. Turn the vehicle to the OFF (LOCK) mode.
5. Jump the SCS line with the i-HDS.
6. Wait **60 seconds** and exit the SCS mode with the i-HDS.

47. Do the idle speed inspection.

NOTE: If the idle speed is not within specification, do the *PCM Idle Learn Procedure* in the service manual.

1. Start the engine and place the vehicle in PARK or NEUTRAL.
2. Hold the engine speed **without load** at **3,000 rpm** until the radiator fan comes on, then let it idle.
3. Check the idle speed under no load conditions: headlights, blower fan, radiator fan, audio system, and A/C off.

Idle Speed at No Load Should Be:

Engine: 680 ± 50 rpm in PARK or NEUTRAL

4. Let the engine idle for **1 minute** with a high electrical load (A/C on, temperature set to max cool, blower fan on high, headlights on high beam).

Idle Speed at High Load Should Be:

Engine: 680 ± 50 rpm in PARK or NEUTRAL

48. Do the VSA sensor neutral position memorization procedure.

NOTE: **Do not** press the brake pedal during this procedure.

1. Park the vehicle on a flat and level surface.
2. Make sure the steering wheel is straight ahead.
3. Select **VSA ADJUSTMENT** in the i-HDS.
4. Select **ALL SENSORS**, and follow the screen prompts.

49. Do the Steering Angle Sensor Neutral Position.

1. Select **EPS ADJUSTMENT** on the i-HDS.
2. Select **EPS STEERING ANGLE SENSOR VALUE CLEAR**, and follow the screen prompts.

50. Exit the i-HDS, **REPAIR #1** is complete.

NOTE: Link to CONTENT REFERENCE, ([Click HERE](#)).