

IMPORTANT UPDATE

TECHNICAL INSTRUCTIONS

FOR

SAFETY RECALL 20TA04

**CERTAIN ENGINE BLOCKS CAN CAUSE ENGINE FAILURE LEADING TO
ENGINE STALL (non-hybrid) and/or FIRE RISK**

CERTAIN 2020 CAMRY

(2020 CAMRY HV is a separate document)

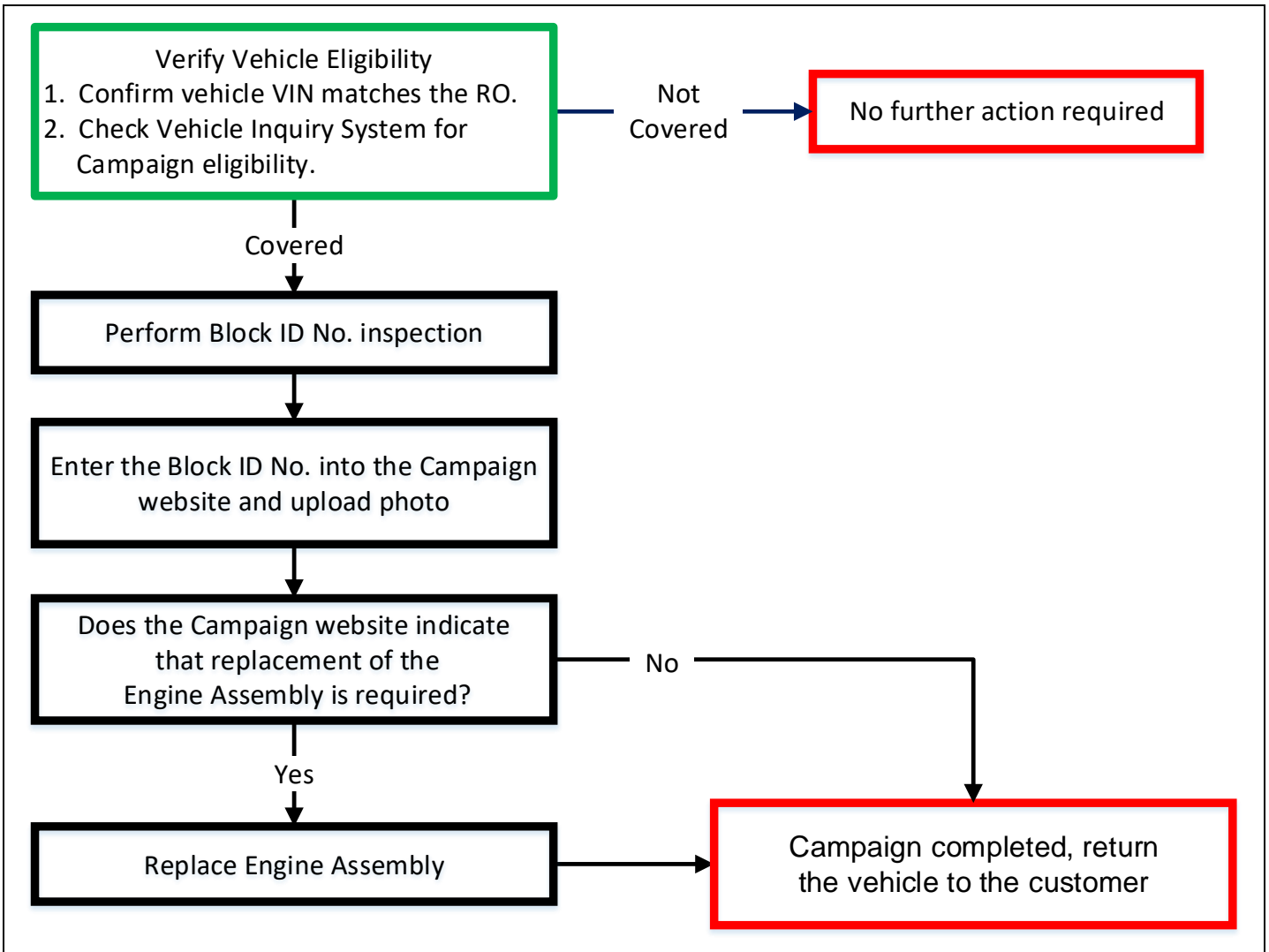
Update 6/24/2020: Engine Assembly Replacement procedure is now included

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold at least one of the following certification levels:

- Expert Technician (Engine)
- Master Technician
- Master Diagnostic Technician

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that it has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were completed by another dealer.

III. PREPARATION

A. PARTS

INSPECTION ONLY:

No parts are required for the inspection of the Block ID No. Parts will only be necessary if the replacement of the Engine Assembly is required, as determined by the inspection.

ENGINE ASSEMBLY REPLACEMENT:

Because of the extensive list of parts and variations of the model, a website has been created to detail the required parts for each vehicle. Reference the following website for a detailed parts list for **each specific VIN:**

<https://20TA04-20LA02-safety-recall.imagespm.info/>

Note: Warranty will only reimburse dealers for the part numbers listed on the website. Any other part numbers will not be accepted on the campaign claim.

B. TOOLS & EQUIPMENT

- Techstream
- Engine Hoist
- Standard Hand Tools
- Engine Stand
- Torque Wrench

SST – These Special Service Tools are required for this repair:

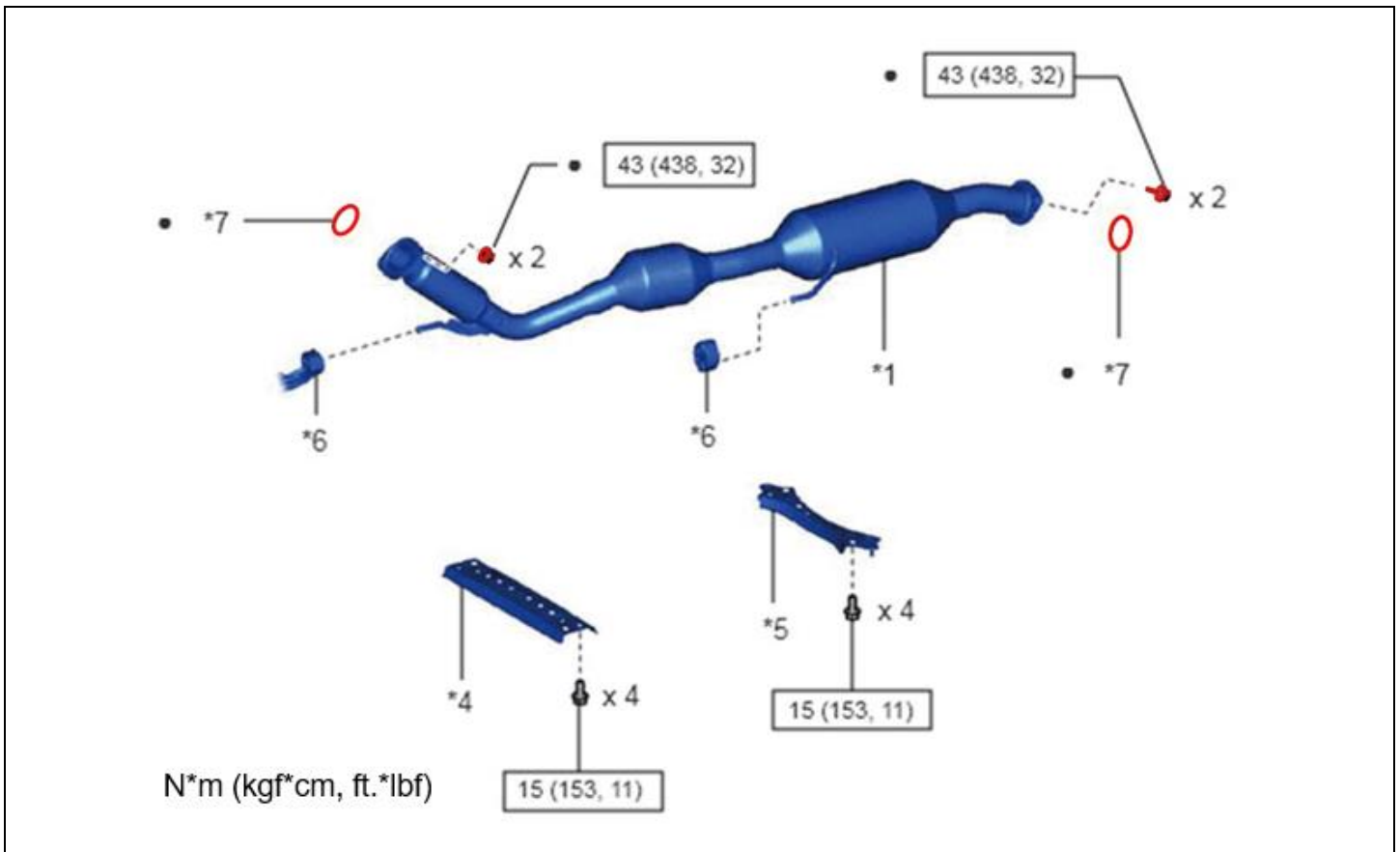
Part Number	Tool Name	Quantity
00002-11100-02	Transmission Fluid Pump	1

IV. BACKGROUND

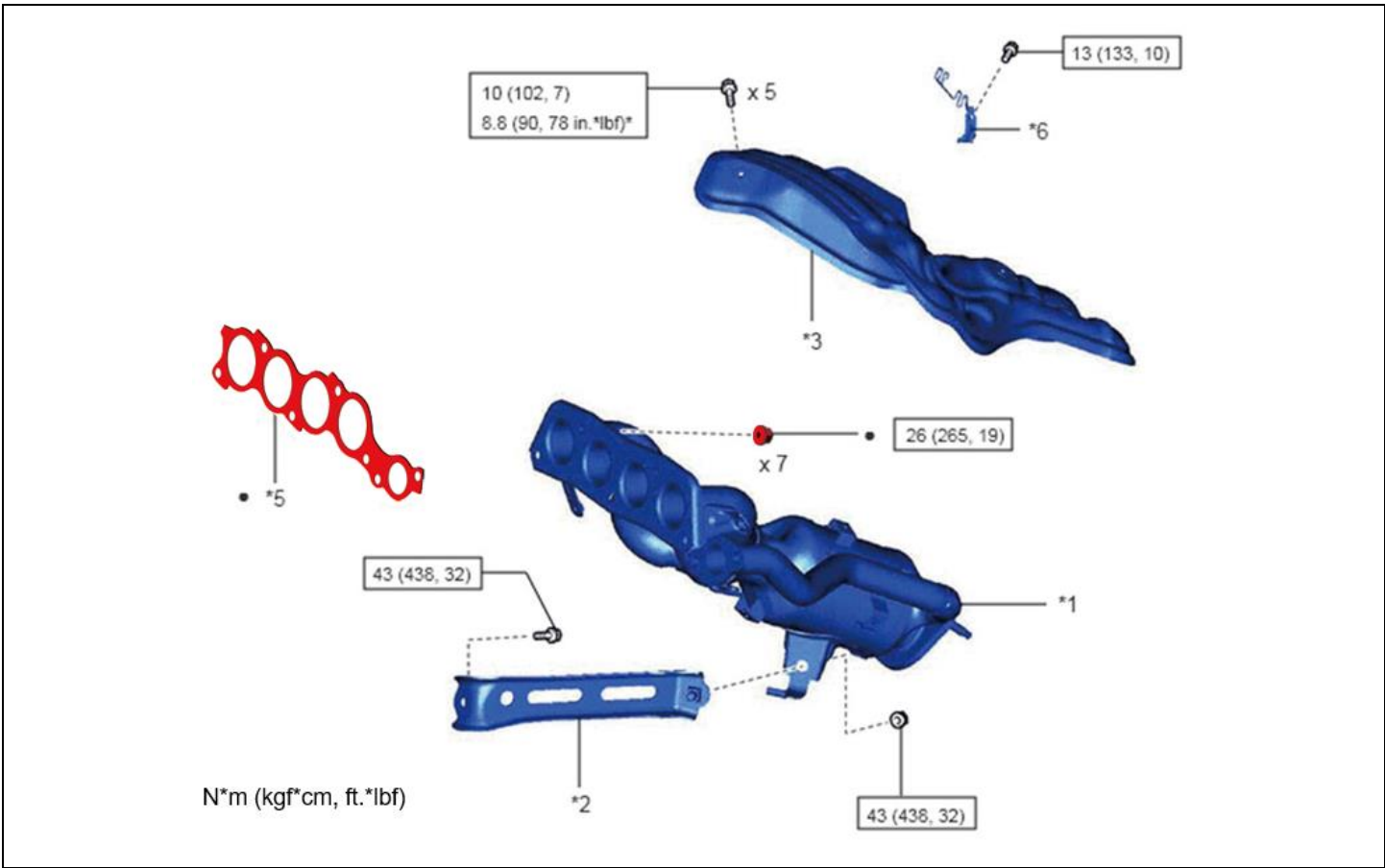
Some of the subject vehicles may be equipped with an engine block that was manufactured incorrectly. This issue may cause coolant to leak internally and/or externally during normal engine operation. This can lead to engine noise, engine smoke, warning lights/malfunction indicator illumination, an audible chime sounding, and/or, in some cases, engine overheating and possible internal mechanical engine damage. If this occurs in a conventional gasoline vehicle, it is possible the vehicle could stall while driving at higher speeds without prior warning, increasing the risk of a crash. For both hybrid and conventional gasoline vehicles, the mechanical engine damage could cause engine oil to leak, which, in the presence of an ignition source, can lead to an increased risk of fire.

NOTE: If the engine stalls in a hybrid vehicle, the vehicle will enter a fail safe driving mode, allowing the driver to operate the vehicle at reduced power for certain distances to maneuver the vehicle to a safe location.

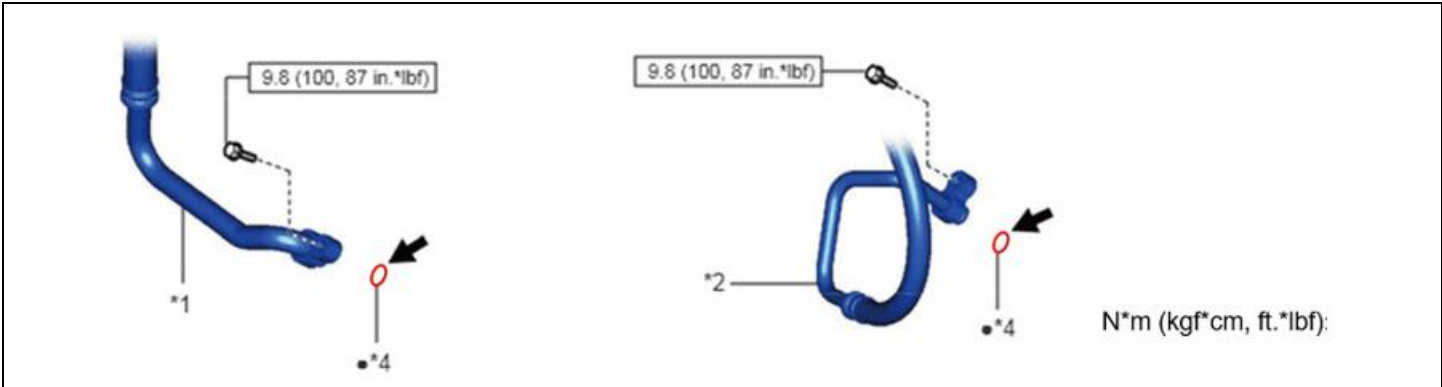
V. COMPONENTS



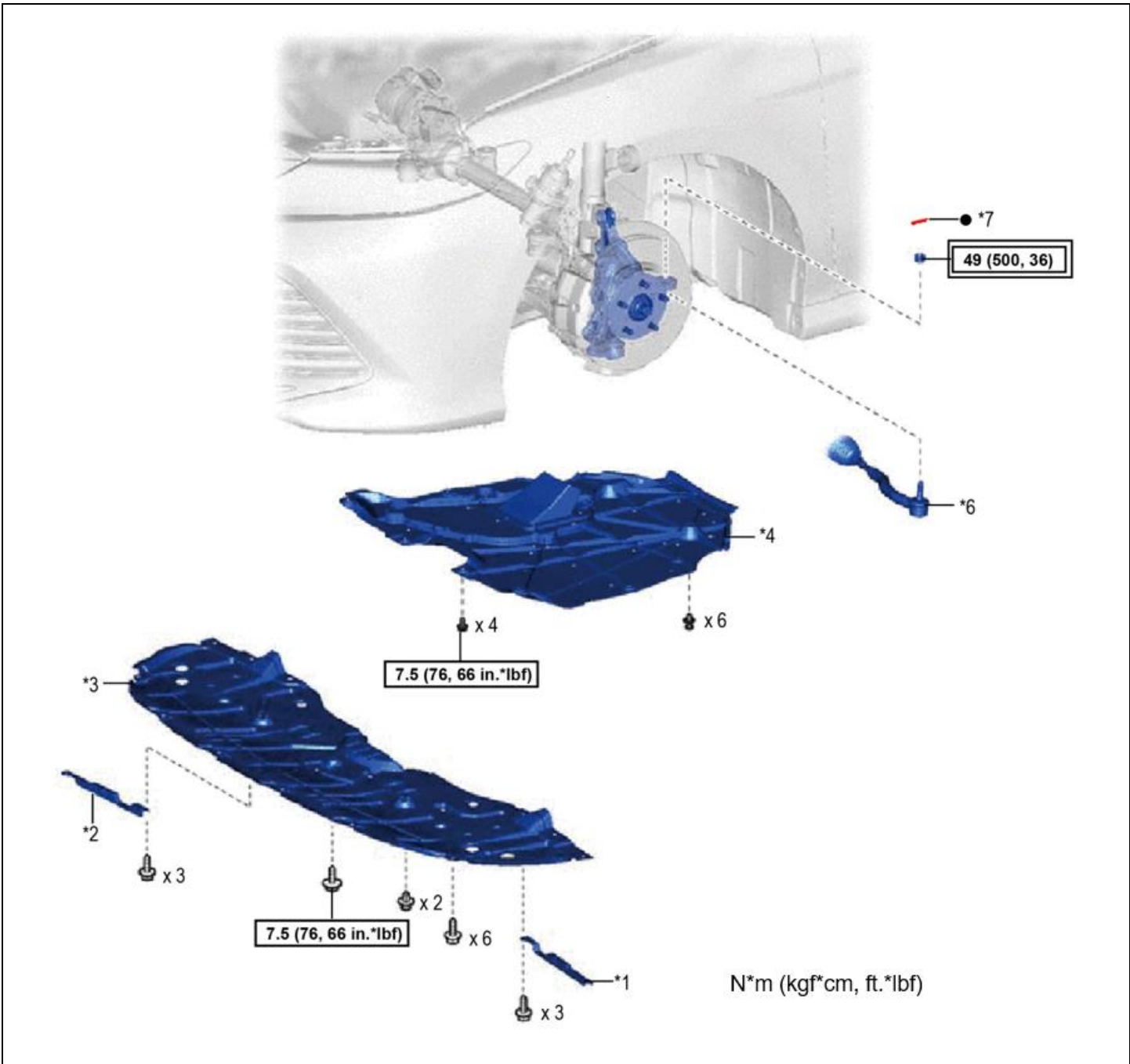
*1	FRONT EXHAUST PIPE ASSEMBLY (TWC: Rear Catalyst)	*2	NO. 1 UPPER FRONT FLOOR HEAT INSULATOR
*3	FRONT LOWER NO. 1 FLOOR HEAT INSULATOR	*4	CENTER FLOOR CROSSMEMBER BRACE
*5	FRONT CENTER FLOOR BRACE	*6	EXHAUST PIPE SUPPORT
*7	GASKET	●	Non-reusable part



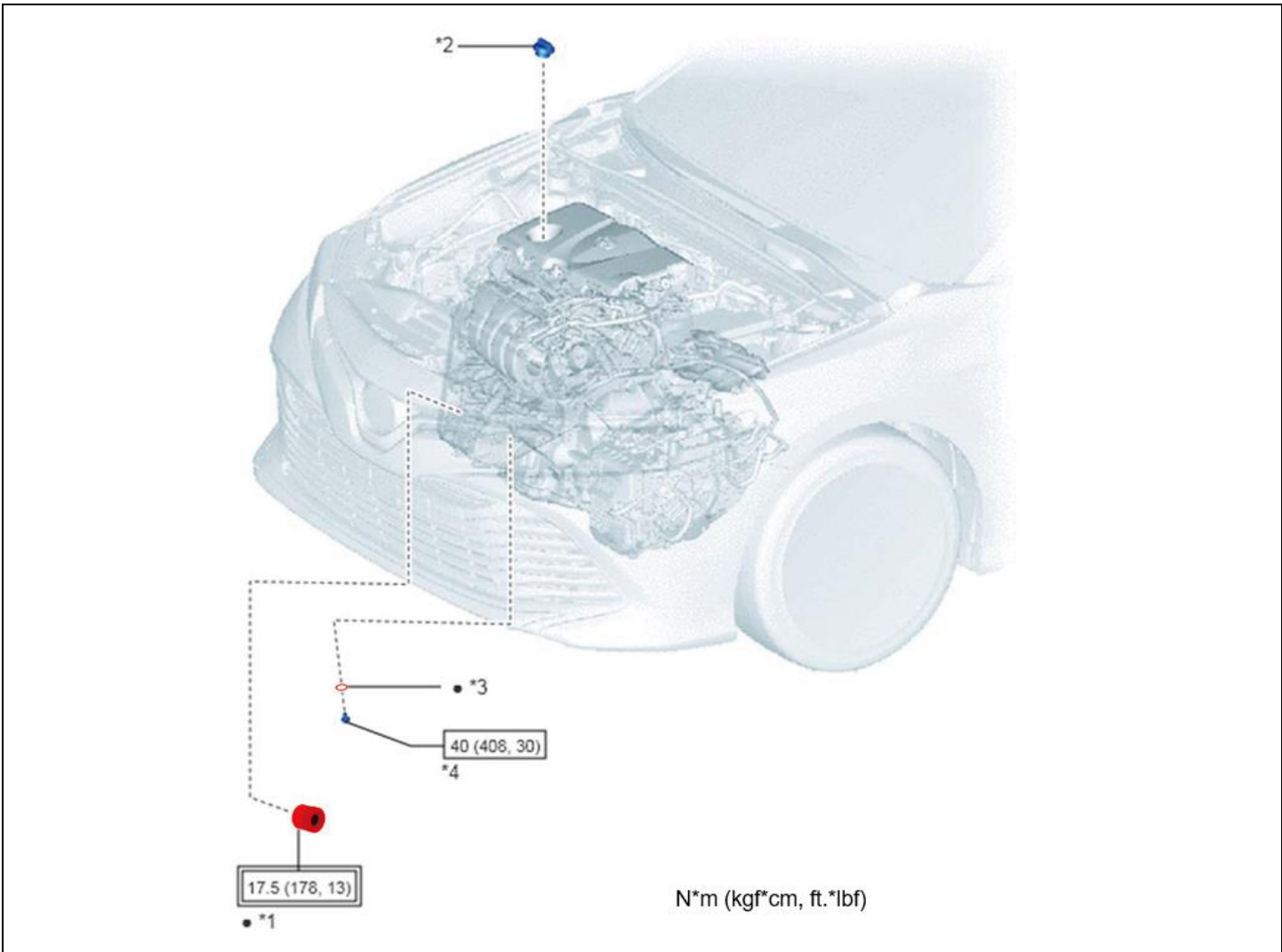
*1	EXHAUST MANIFOLD (TWC: Front Catalyst)	*2	MANIFOLD STAY
*3	NO. 1 EXHAUST MANIFOLD HEAT INSULATOR	*4	NO. 2 EXHAUST MANIFOLD HEAT INSULATOR
*5	EXHAUST MANIFOLD TO HEAD GASKET	*6	WIRE HARNESS CLAMP BRACKET
●	Non-reusable part	-	-



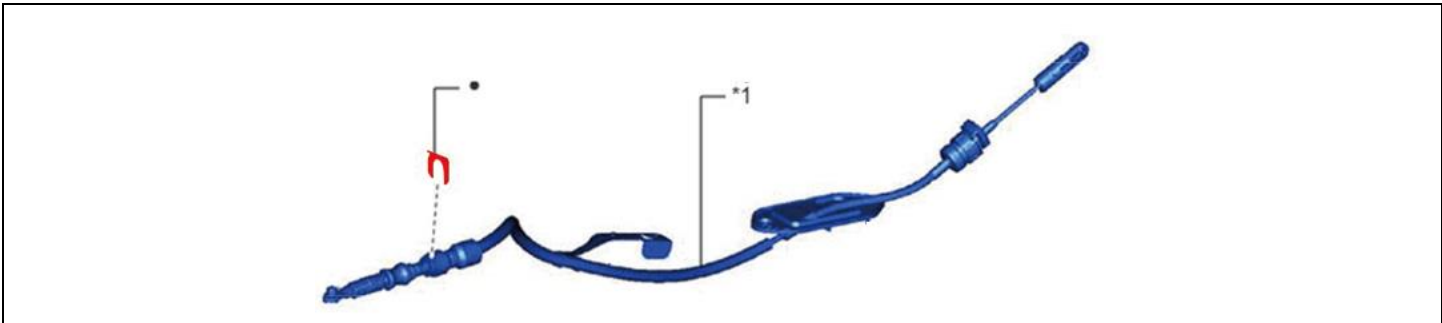
*1	SUCTION HOSE SUB-ASSEMBLY	*2	NO. 1 COOLER REFRIGERANT DISCHARGE HOSE SUB-ASSEMBLY
*4	O-RING	●	Non-reusable part



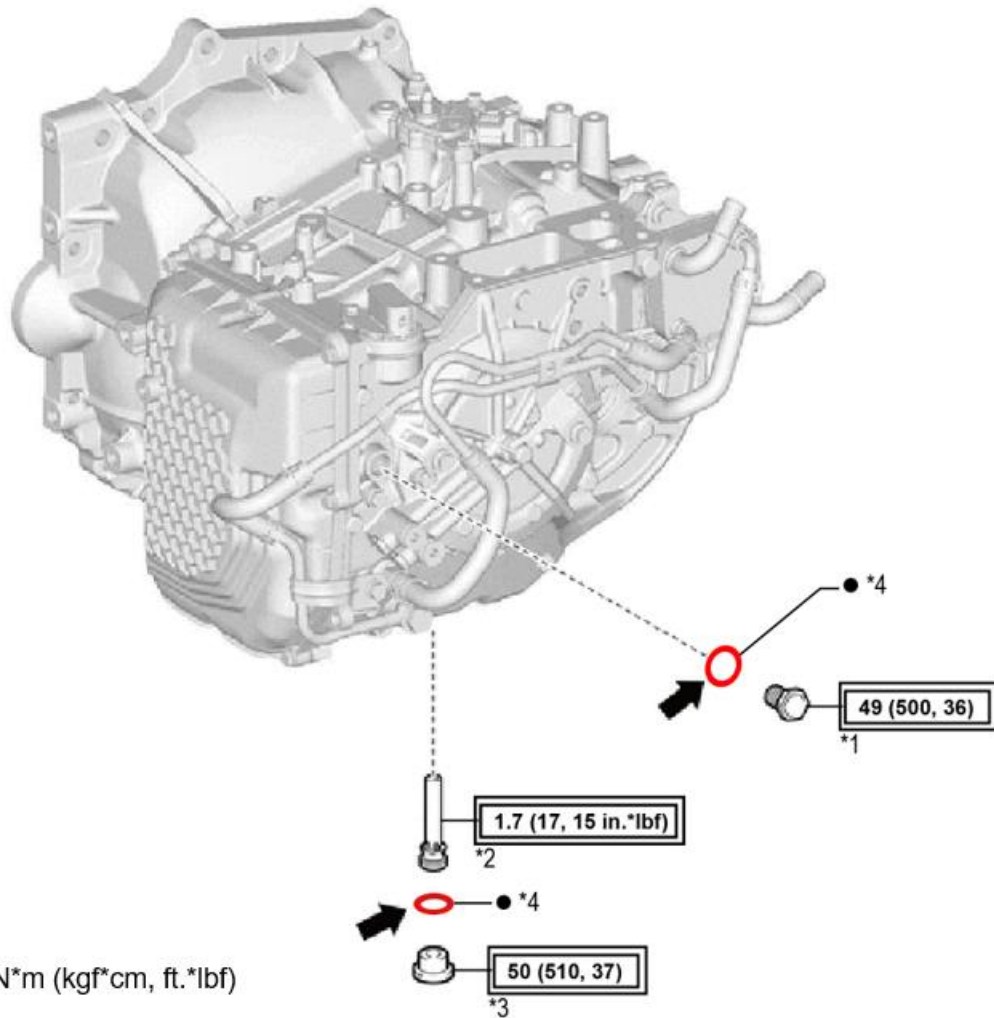
*1	FRONT WHEEL OPENING EXTENSION PAD LH	*2	FRONT WHEEL OPENING EXTENSION PAD RH
*3	NO. 1 ENGINE UNDER COVER	*4	NO. 2 ENGINE UNDER COVER ASSEMBLY
*5	STEERING INTERMEDIATE SHAFT ASSEMBLY	*6	TIE ROD ASSEMBLY LH
*7	COTTER PIN	●	Non-reusable part





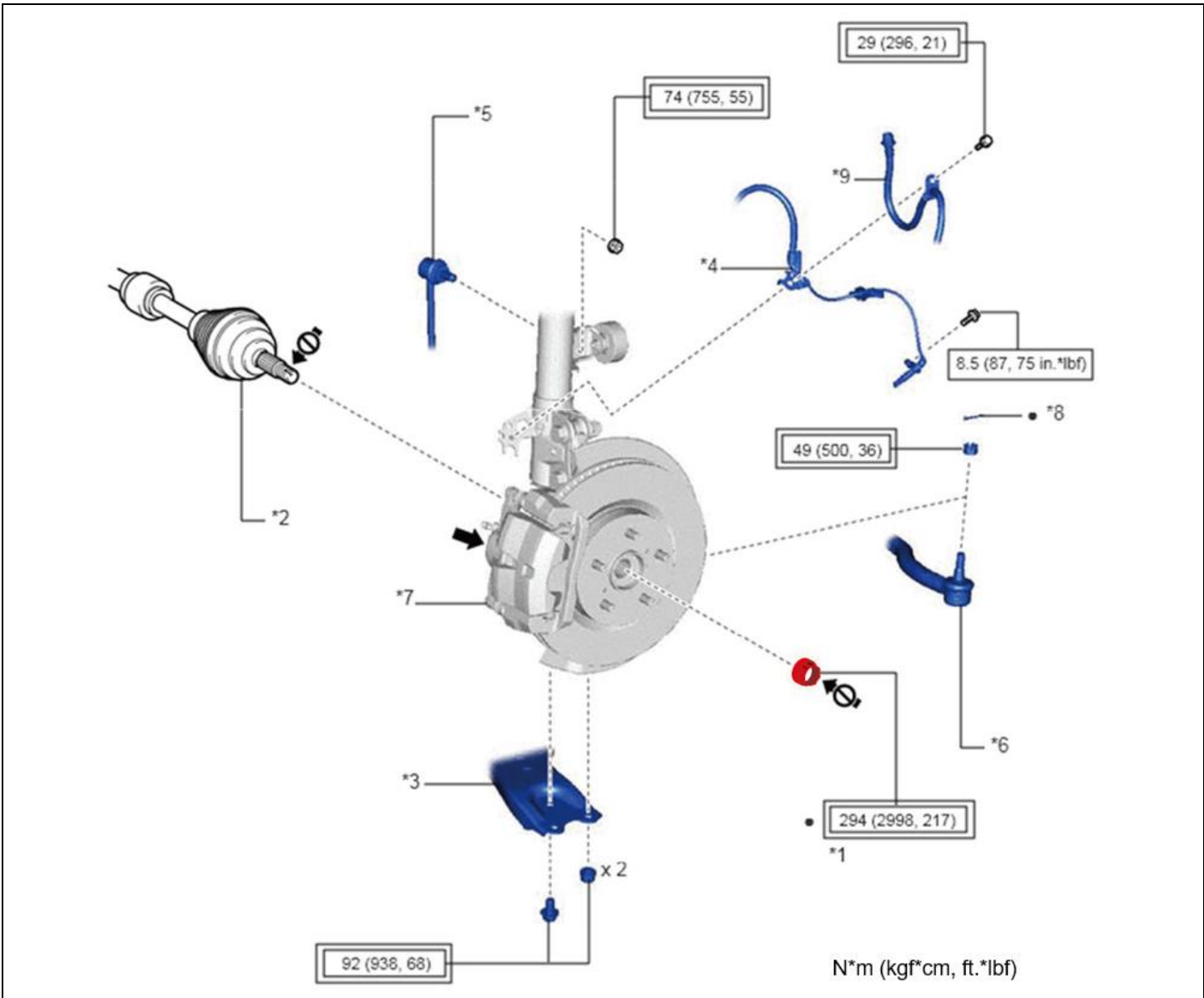
*1	OIL FILTER SUB-ASSEMBLY	*2	OIL FILLER CAP SUB-ASSEMBLY
*3	GASKET	*4	OIL PAN DRAIN PLUG
•	Non-reusable part	-	-



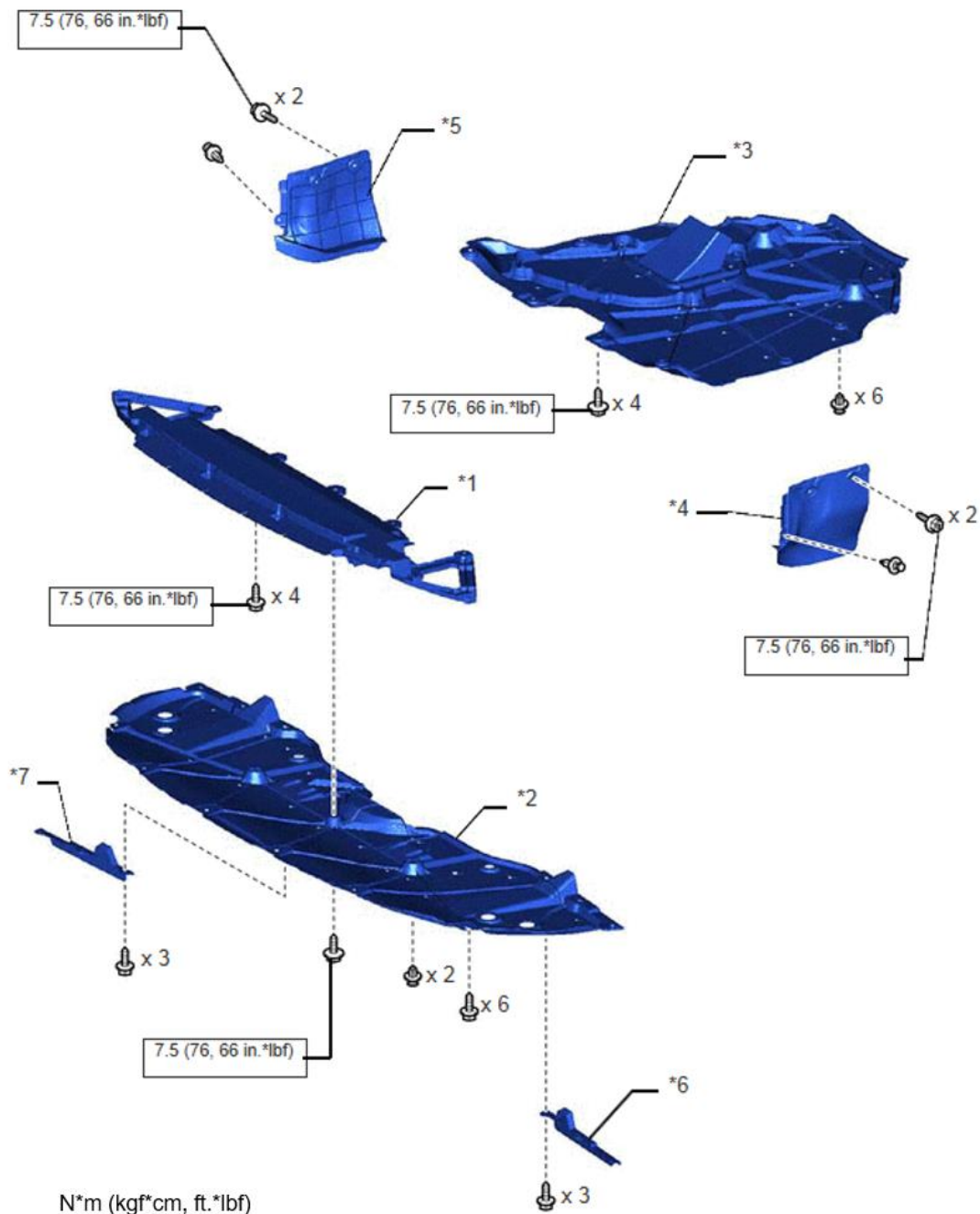
*1	TRANSMISSION CONTROL CABLE ASSEMBLY	•	Non-reusable part
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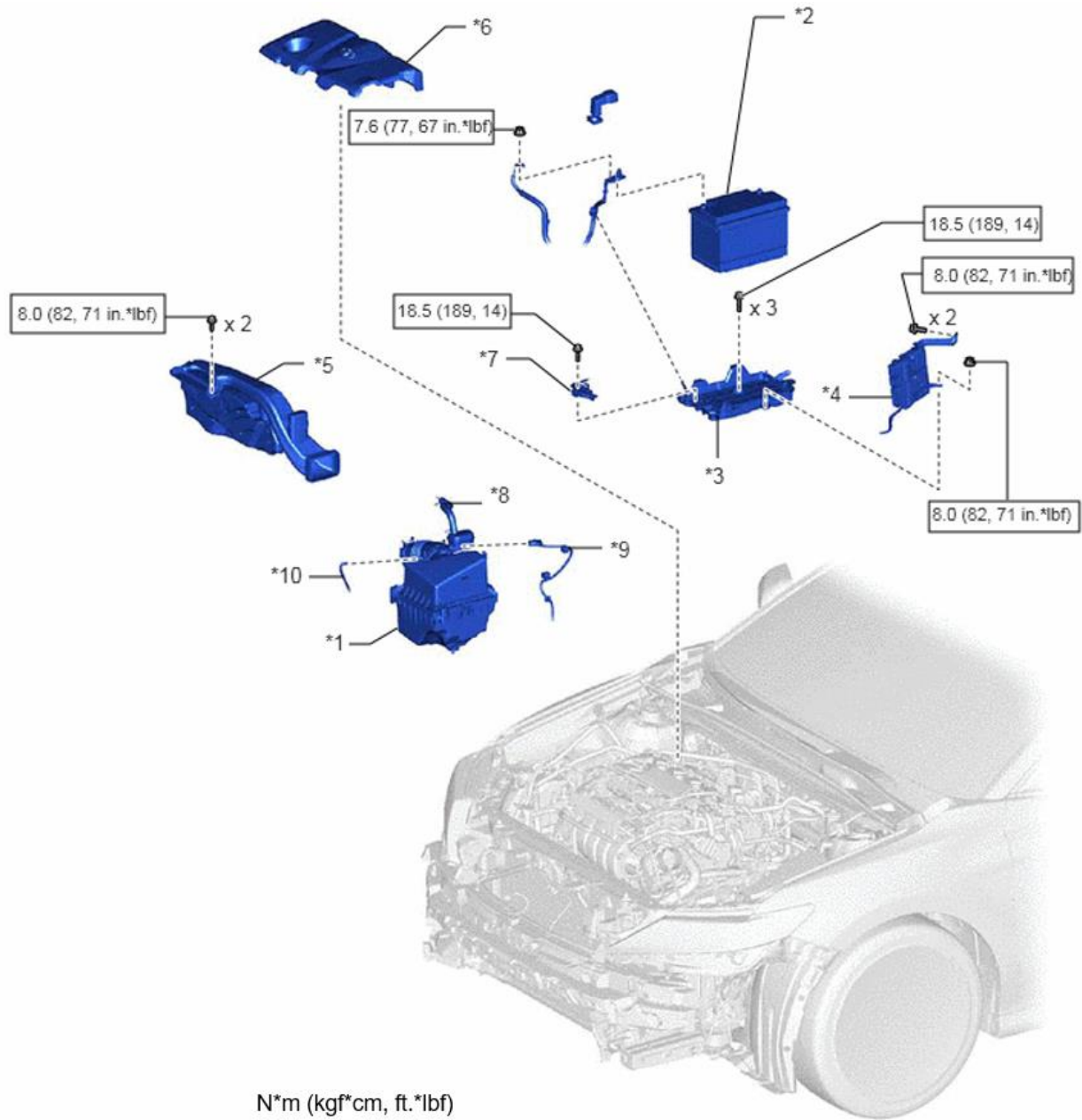
*1	REFILL PLUG	*2	NO. 1 TRANSMISSION OIL FILLER TUBE
*3	OVERFLOW PLUG	*4	GASKET
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)	●	Non-reusable part
	Toyota Genuine ATF WS	-	-




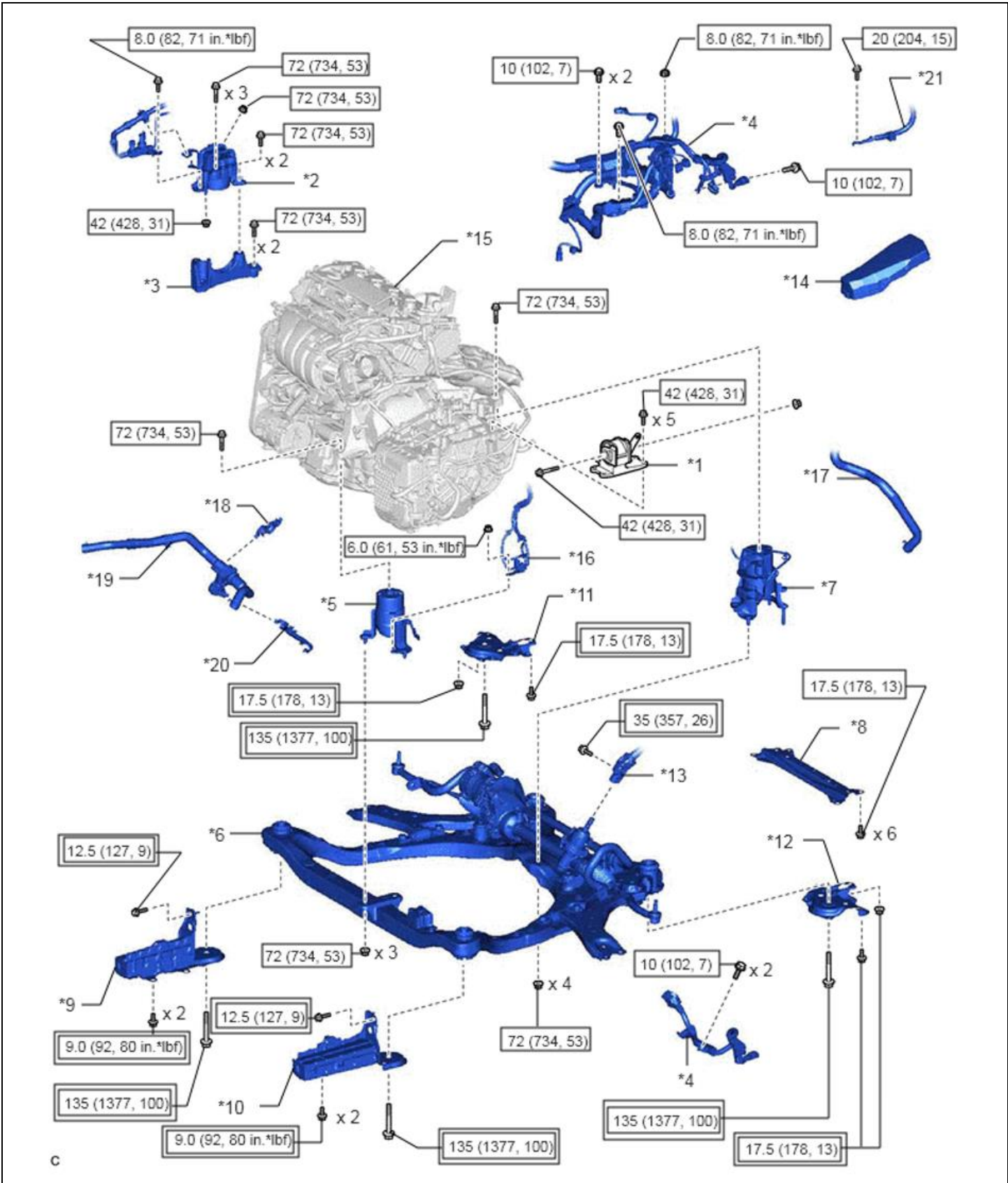
*1	FRONT AXLE SHAFT NUT	*2	FRONT DRIVE SHAFT ASSEMBLY
*3	FRONT LOWER NO. 1 SUSPENSION ARM SUB-ASSEMBLY	*4	FRONT SPEED SENSOR
*5	FRONT STABILIZER LINK ASSEMBLY	*6	TIE ROD ASSEMBLY
*7	FRONT AXLE ASSEMBLY	*8	COTTER PIN
*9	FRONT FLEXIBLE HOSE	-	-
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)		N*m (kgf*cm, ft.*lbf): Specified torque
•	Non-reusable part		Toyota Genuine ATF WS
	Do not apply lubricants to the threaded parts	-	-





*1	FRONT LOWER BUMPER ABSORBER	*2	NO. 1 ENGINE UNDER COVER
*3	NO. 2 ENGINE UNDER COVER ASSEMBLY	*4	FRONT FENDER APRON SEAL LH
*5	FRONT FENDER APRON SEAL RH	*6	FRONT WHEEL OPENING EXTENSION PAD LH
*7	FRONT WHEEL OPENING EXTENSION PAD RH		N*m (kgf*cm, ft.*lbf): Specified torque

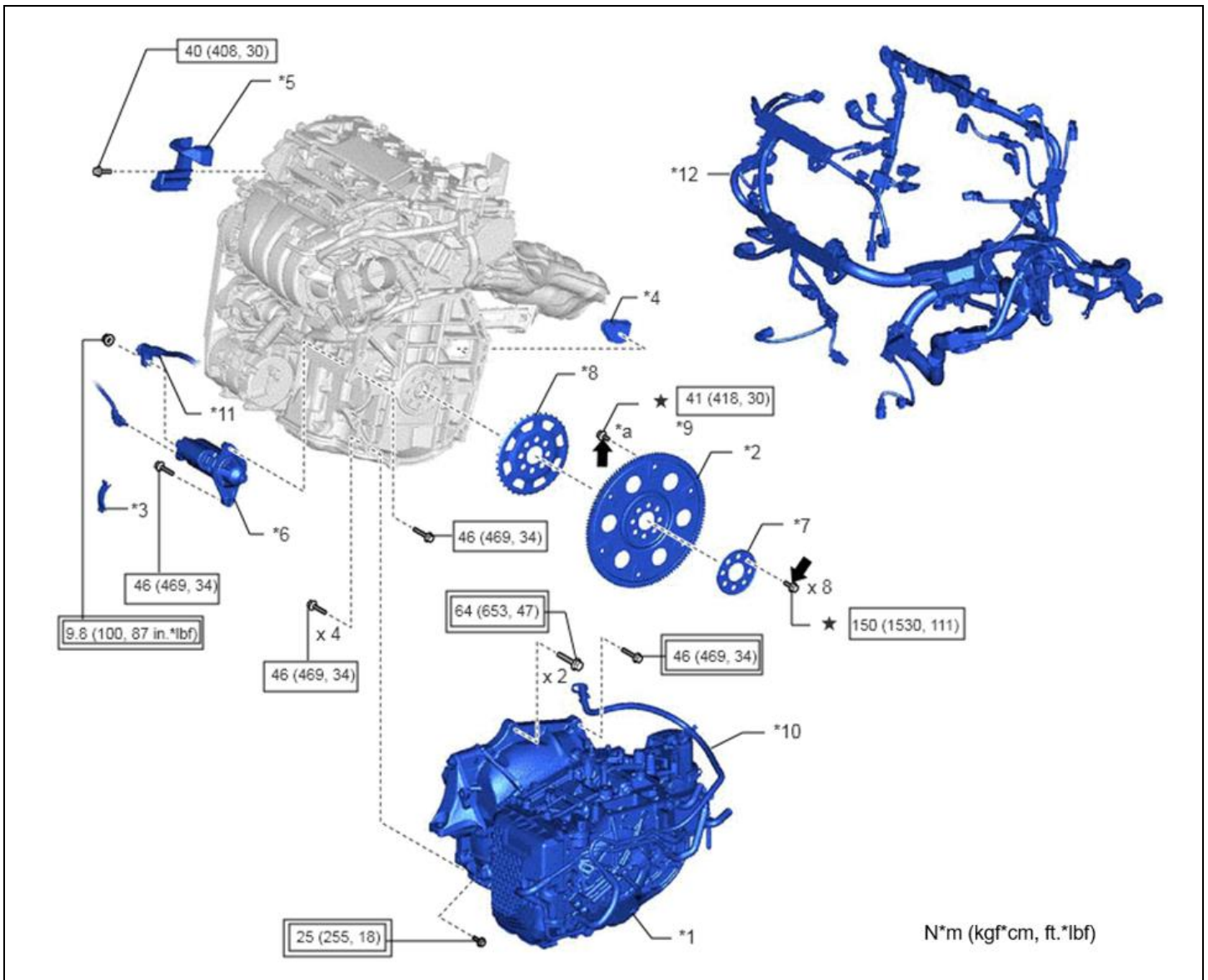


*1	AIR CLEANER ASSEMBLY WITH AIR CLEANER HOSE	*2	BATTERY
*3	BATTERY CLAMP SUB-ASSEMBLY	*4	ECM
*5	INLET AIR CLEANER ASSEMBLY	*6	NO. 1 ENGINE COVER SUB-ASSEMBLY
*7	NO. 2 BATTERY CLAMP	*8	NO. 2 VENTILATION HOSE
*9	MASS AIR FLOW METER SUB-ASSEMBLY CONNECTOR	*10	VACUUM HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-




c

*1	REAR NO. 2 ENGINE MOUNTING INSULATOR	*2	ENGINE MOUNTING INSULATOR SUB-ASSEMBLY RH
*3	ENGINE MOUNTING SPACER	*4	WIRE HARNESS
*5	FRONT ENGINE MOUNTING INSULATOR	*6	FRONT FRAME ASSEMBLY
*7	REAR ENGINE MOUNTING INSULATOR	*8	BODY MOUNTING PLATE
*9	FRONT BUMPER EXTENSION SUB-ASSEMBLY RH	*10	FRONT BUMPER EXTENSION SUB-ASSEMBLY LH
*11	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY RH	*12	FRONT SUSPENSION MEMBER BRACKET SUB-ASSEMBLY LH
*13	STEERING INTERMEDIATE SHAFT ASSEMBLY	*14	NO. 2 RELAY BLOCK COVER
*15	ENGINE ASSEMBLY WITH TRANSAXLE	*16	VACUUM HOSE
*17	WATER BY-PASS HOSE ASSEMBLY	*18	HOSE CLAMP
*19	FLOW SHUTTING VALVE (NO. 1 WATER BY-PASS HOSE)	*20	TRANSMISSION BREATHER CLAMP
*21	EARTH WIRE	-	-
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)		N*m (kgf*cm, ft.*lbf): Specified torque



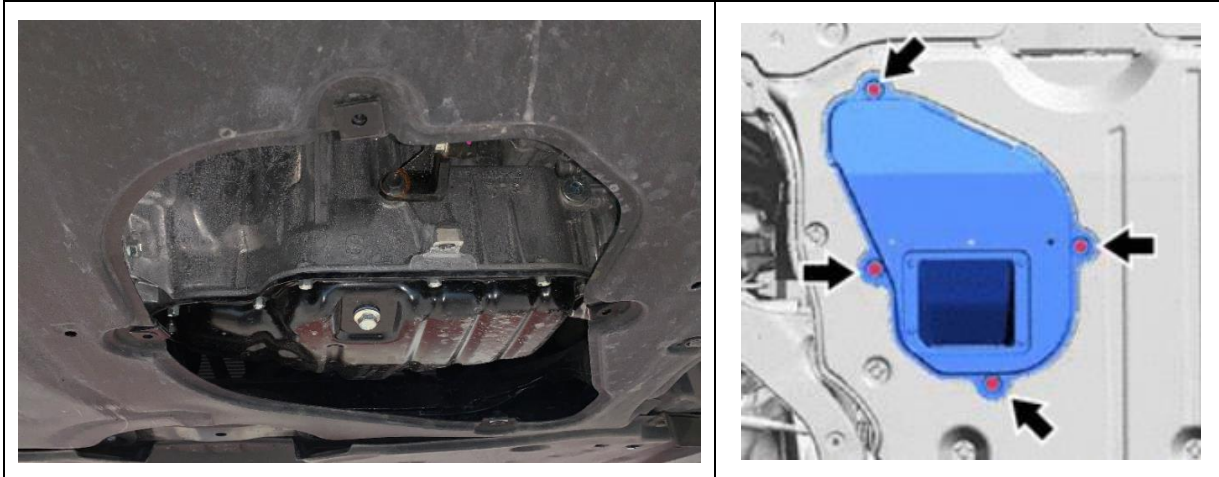
N*m (kgf*cm, ft.*lbf)

*1	AUTOMATIC TRANSAXLE ASSEMBLY	*2	DRIVE PLATE AND RING GEAR SUB-ASSEMBLY
*3	FLYWHEEL HOUSING SIDE COVER	*4	FLYWHEEL HOUSING UNDER COVER
*5	FUEL DELIVERY GUARD	*6	STARTER ASSEMBLY
*7	REAR DRIVE PLATE SPACER	*8	NO. 1 CRANKSHAFT POSITION SENSOR PLATE
*9	DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT	*10	BREATHER PLUG HOSE
*11	NO. 2 ENGINE WIRE	*12	ENGINE WIRE
*a	<ul style="list-style-type: none"> • BLACK COLOR: x 1 • SILVER COLOR: x 5 	-	-
	Adhesive 1324	★	Precoated part

VI. BLOCK ID No. INSPECTION

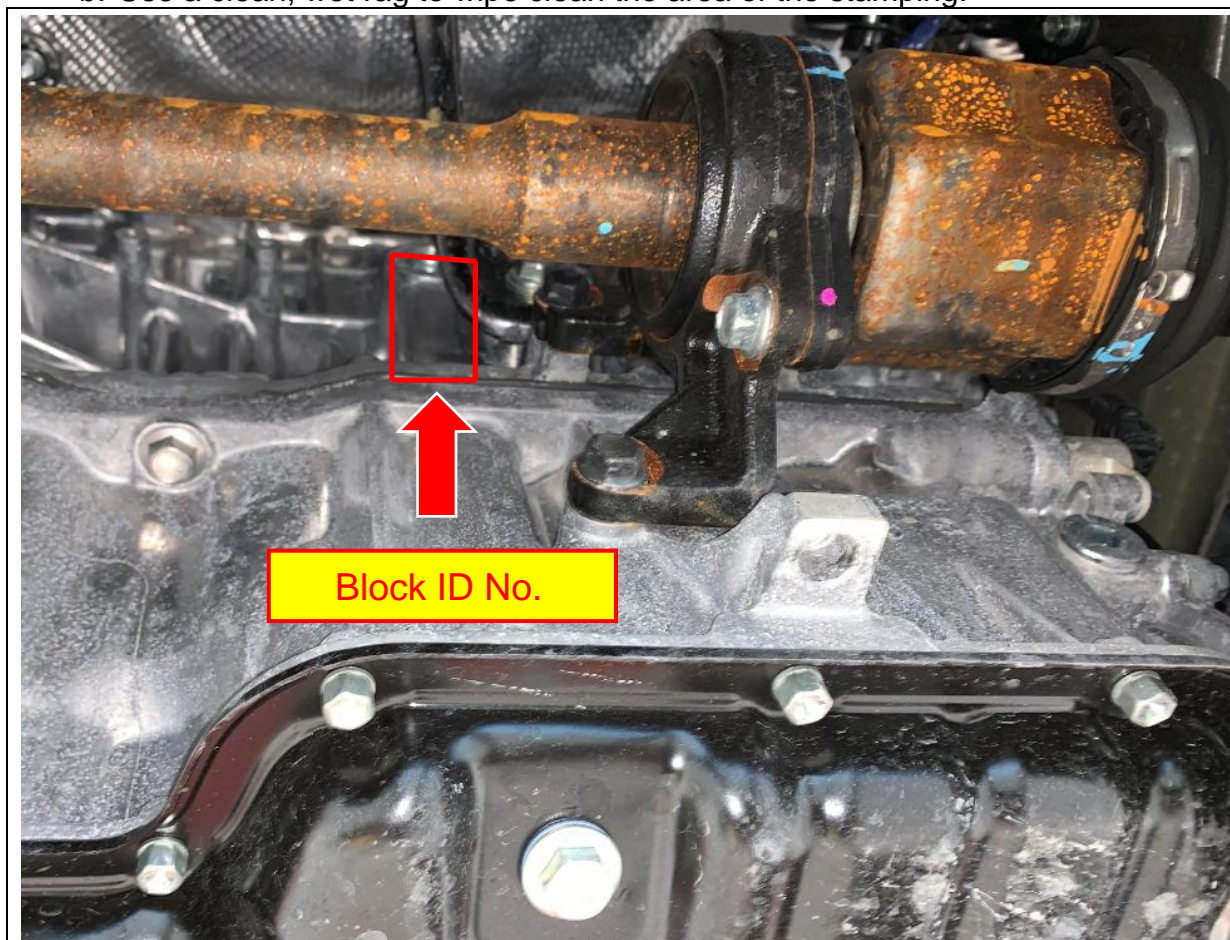
1. REMOVE CENTER No. 4 ENGINE UNDER COVER

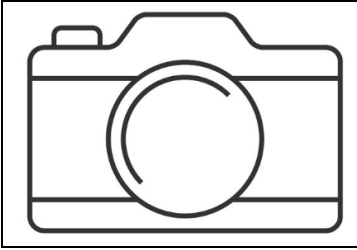
- Raise the car on a lift to gain access to the bottom of the vehicle.
- Remove the 4 screws to remove the Center No. 4 Engine Under Cover.



2. LOCATE ENGINE BLOCK ID No.

- Reference the photo below to locate the Block ID No. stamping.
- Use a clean, wet rag to wipe clean the area of the stamping.





3. TAKE A PHOTO OF THE BLOCK ID No.

- a. Use a digital camera to take a photo of the Block ID No. Be sure to place the camera as straight and level as possible to the surface of the stamping.



4. REVIEW PHOTO

- a. Zoom in on the Block ID No. in the photo to be sure all 12 characters can be clearly read. If all 12 digits are not legible, retake the photo.

5. OPEN INSPECTION WEBSITE

- a. Open the 20TA04 Inspection Website by selecting the following link:

<https://20TA04-20LA02-safety-recall.imagespm.info/>

- b. Enter your dealer code in the User ID field.
- c. Enter xxxxx for the Password. It will then prompt you to change the password. You can enter the same (5 x's) again, or create your own password. If you do change the password, be sure to advise other technicians of the updated password.

Note: Selecting the “Forgot Password” link will reset the password to the default password: xxxxx

- d. Enter the vehicles VIN. It is critical that the VIN be entered accurately.

6. ENTER BLOCK ID No.

a. Enter the top row of the Block ID No. (6 digits) when prompted.

NOTE: All 6 digits are NUMBERS.



b. Enter the bottom row of the Block ID No. (6 digits) when prompted.

NOTE: The first digit is a LETTER, the remaining digits are NUMBERS.



Image Upload
Take a photo of the Block ID Number and save to computer. Browse to select the file location and upload.

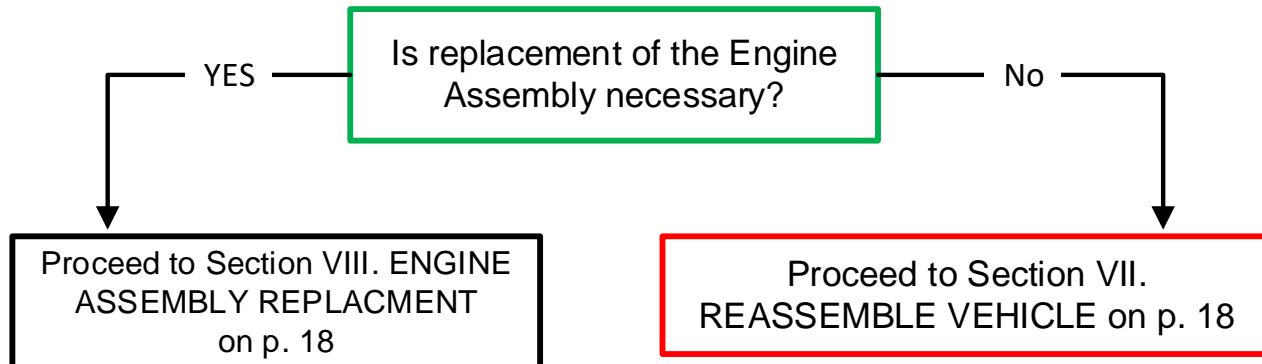
VIN:
Block ID Number:
 | No file chosen

7. UPLOAD PHOTO

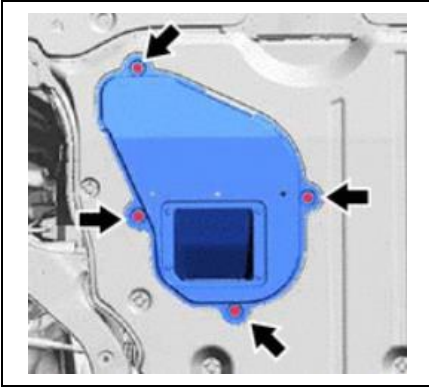
a. The website will require a photo of the Block ID No. to be uploaded. Be sure that all 12 digits of the Block ID No. are legible in the photo.

8. REVIEW INSPECTION RESULTS

a. Review the results provided by the website after inputting the Block ID No.



VII. REASSEMBLE VEHICLE (Engine Replacement NOT Necessary)



1. **INSTALL CENTER No. 4 ENGINE UNDER COVER**
 - a. Install the center No. 4 engine under cover with the 4 screws.

The Campaign is now complete. Return the vehicle to the customer.

VIII. ENGINE ASSEMBLY REPLACEMENT

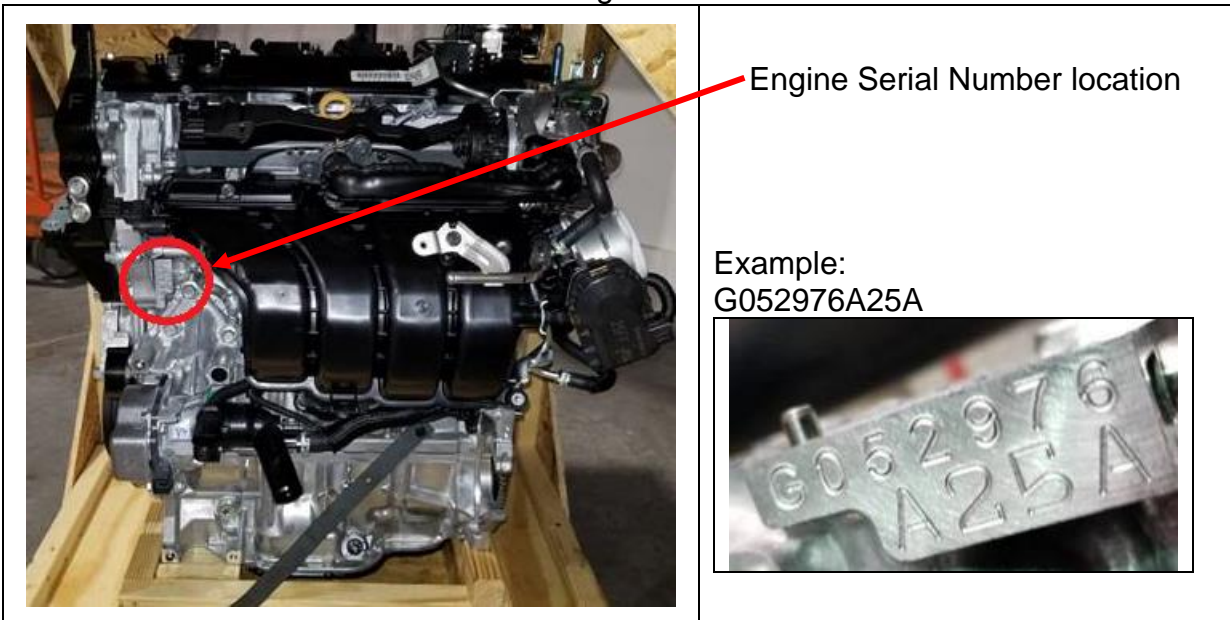
Engine Assembly Replacement is necessary ONLY if directed by the inspection website.

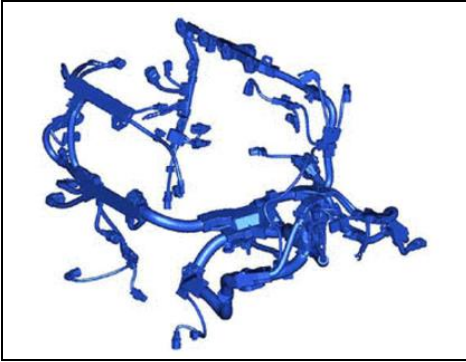
DO NOT perform this procedure unless directed.

1. **REMOVE ENGINE & TRANSMISSION FROM VEHICLE**
 - a. Follow the Repair Manual Process to remove the engine from the vehicle.

[A25A-FKS \(ENGINE MECHANICAL\): ENGINE ASSEMBLY: REMOVAL; 2020 MY Camry \(RM100000001KX6Z\)](#)

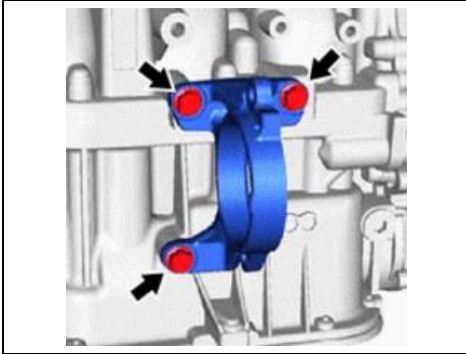
2. **UPDATE ENGINE SERIAL NUMBER**
 - a. Send an email to quality_compliance@toyota.com with the following information:
 - Subject: J0M Engine Serial Number Update
 - Vehicle Identification Number (VIN)
 - Serial Number from the ORIGINAL engine
 - Serial Number from the **NEW** engine





3. REMOVE ENGINE MAIN HARNESS

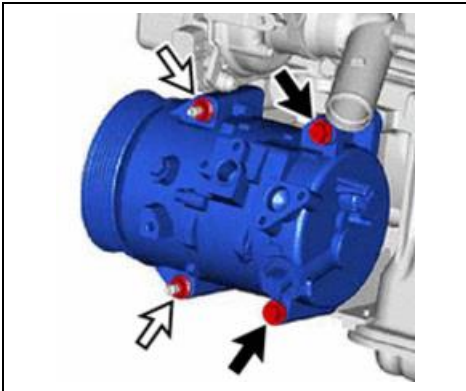
- a. Remove the engine main harness from the original engine.



4. TRANSFER DRIVE SHAFT BEARING BRACKET

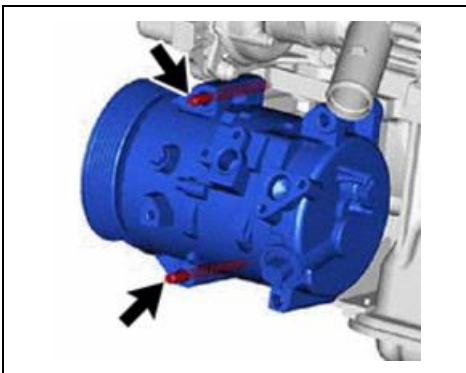
- a. Remove the 3 bolts and drive shaft bearing bracket from the original engine.
- b. Install the drive shaft bearing bracket and 3 bolts onto the **NEW** engine.

Torque: 47 lbf.ft {63.7 N·m, 650 kgf·cm}



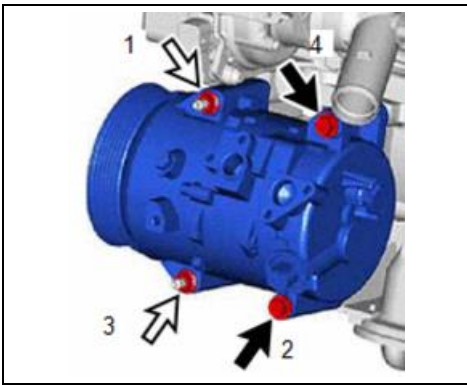
5. TRANSFER COMPRESSOR ASSEMBLY (with stud bolts)

- a. Remove the 2 bolts and 2 nuts from the original engine.



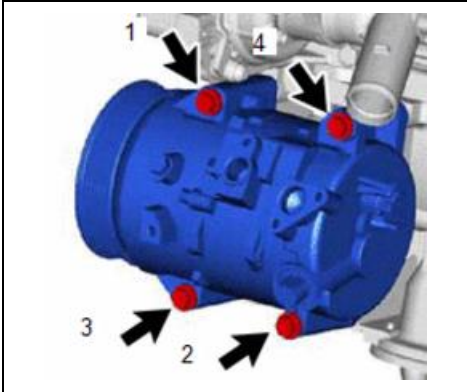
- b. Using a E8 “TORX” wrench, remove the 2 stud bolts and compressor assembly.
- c. Install the 2 stud bolts onto the **NEW** engine.

Torque: 7 lbf.ft {10 N·m, 102 kgf·cm}



- d. Install the compressor assembly onto the NEW engine with the 2 bolts and 2 nuts. Torque in the sequence shown.

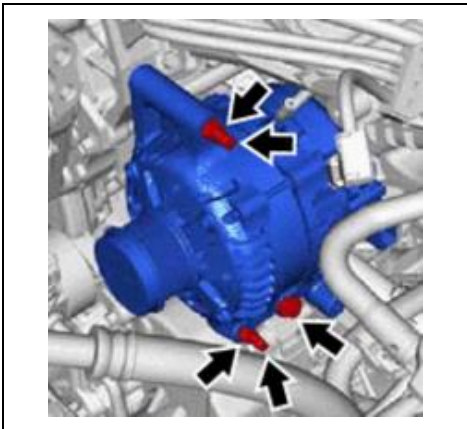
Torque: 18 lbf.ft {24.5 N·m, 250 kgf·cm}



6. TRANSFER COMPRESSOR ASSEMBLY (bolts only)

- a. Remove the 4 bolts and compressor assembly from the original engine.
 b. Install the compressor assembly and 4 bolts onto the **NEW** engine. Torque in the sequence shown.

Torque: 18 lbf.ft {24.5 N·m, 250 kgf·cm}



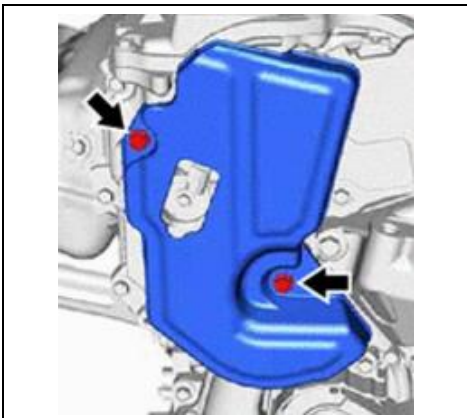
7. TRANSFER GENERATOR ASSEMBLY

- a. Remove the 2 nuts and bolt from the original engine.
 b. Using a E8 "TORX" wrench, remove the 2 studs.
 c. Install the 2 studs onto the **NEW** engine.

Torque: 87 lbf.in {9.8 N·m, 100 kgf·cm}

- d. Install the original generator onto the **NEW** engine.
 e. Install the 2 nuts and bolt.

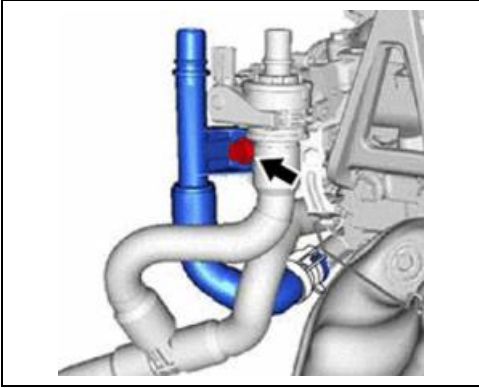
Torque: 18 lbf.ft {25 N·m, 255 kgf·cm}



8. TRANSFER NO. 2 ENGINE COVER

- a. Remove the 2 bolts and cover
 b. Install the cover and 2 bolts onto the **NEW** engine.

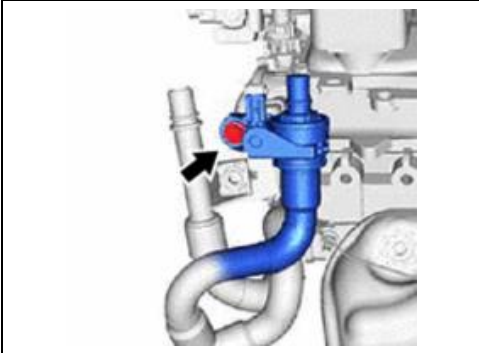
Torque: 7 lbf.ft {10 N·m, 102 kgf·cm}



9. TRANSFER NO. 2 WATER BY-PASS PIPE

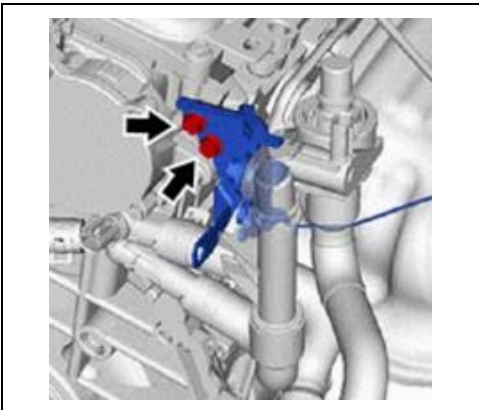
- Remove the bracket bolt from the original engine.
- Slide the clamp and remove the hose.
- Install the hose and clamp onto the **NEW** engine.
- Install the bracket bolt.

Torque: 14 lbf.ft {19 N·m, 194 kgf·cm}



10. TRANSFER FLOW SHUTTING VALVE

- Remove the bolt from the original engine.

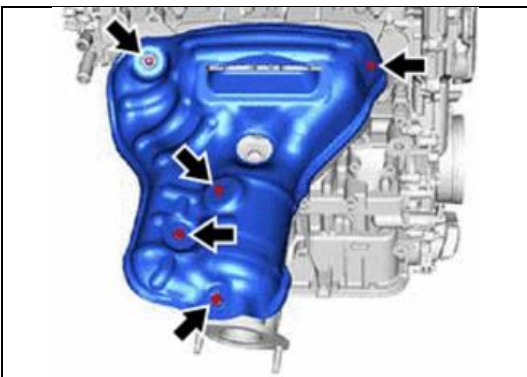


- Remove the 2 bolts and the water hose bracket.
- Remove the clamp and hose from the original engine.
- Install the hose onto the water outlet of the **NEW** engine.
- Install the bracket onto the **NEW** engine with the 2 bolts.

Torque: 10 lbf.ft {13 N·m, 133 kgf·cm}

- Install the valve to the bracket.

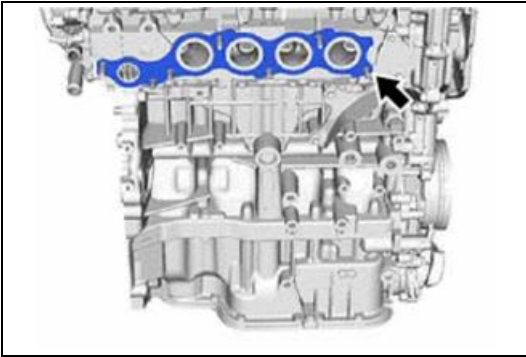
Torque: 14 lbf.ft {19 N·m, 194 kgf·cm}



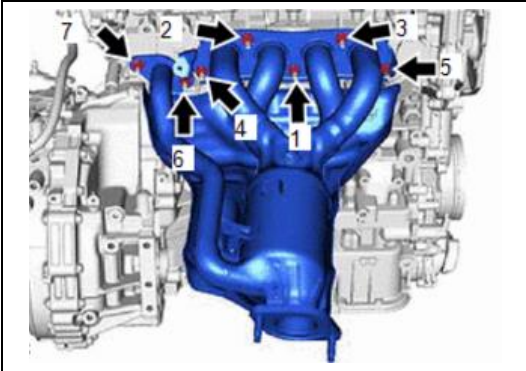
11. TRANSFER EXHAUST MANIFOLD

- Remove the 5 bolts from the heat insulator.
- Remove the manifold stay on the bottom.
- Using a 12mm deep socket, remove the 7 nuts and separate the exhaust manifold.

Note: Discard the 7-exhaust manifold nut's as they will not be reused.

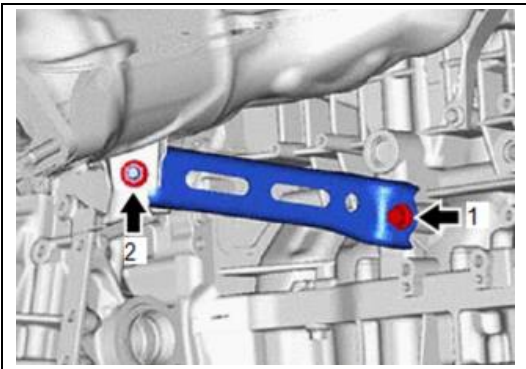


- d. Install a **NEW** exhaust manifold gasket onto the **NEW** engine.



- e. Install the exhaust manifold onto the **NEW** engine.
 f. Temporarily install the 7 **NEW** nuts onto the studs.
 g. Using a 12mm deep socket, torque the 7 nuts in the sequence shown.

Torque: 19 lbf.ft {26 N·m, 265 kgf·cm}

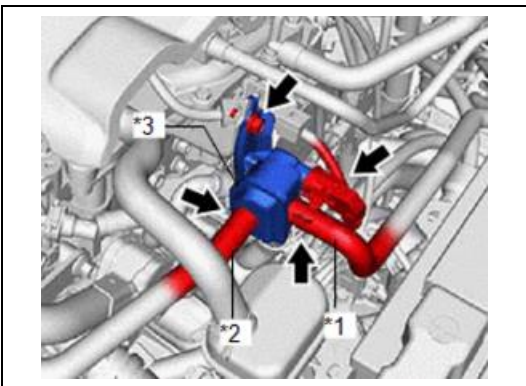


- h. Install the manifold stay and the nut and bolt.
 i. Torque the nut and bolt in the sequence shown

Torque: 32 lbf.ft {43 N·m, 438 kgf·cm}

- j. Install the heat insulator with the 5 bolts.

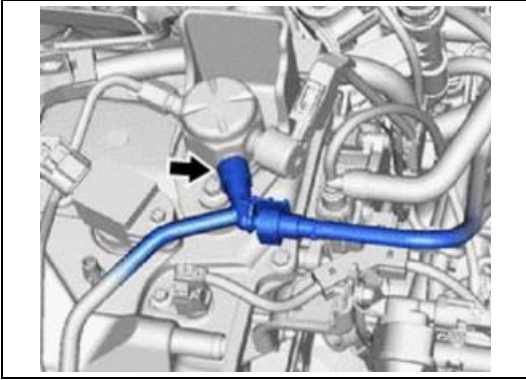
Torque: 7 lbf.ft {10 N·m, 102 kgf·cm}



12. TRANSFER PURGE VALVE

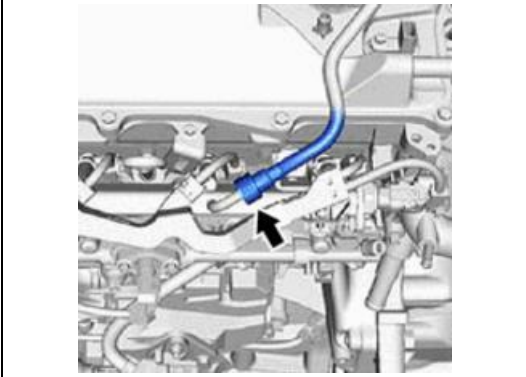
- a. Unbolt the purge valve from the mounting bracket on the original engine.
 b. Disconnect the hoses at the other end (opposite the purge valve)
 c. Install the purge valve on the **NEW** engine, attaching the hoses properly. Install the bolt to the mounting bracket.

Torque: 7 lbf.ft {10 N·m, 102 kgf·cm}



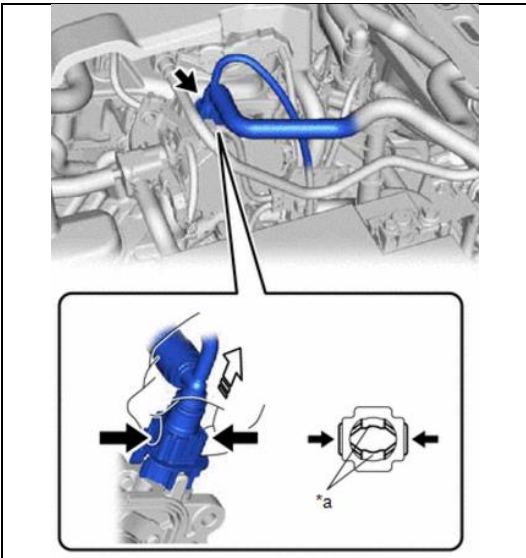
13. TRANSFER FUEL TUBE

a. Disconnect the fuel tube at the high-pressure fuel pump of the original engine.



b. Disconnect the fuel tube at the low-pressure fuel rail of the original engine.

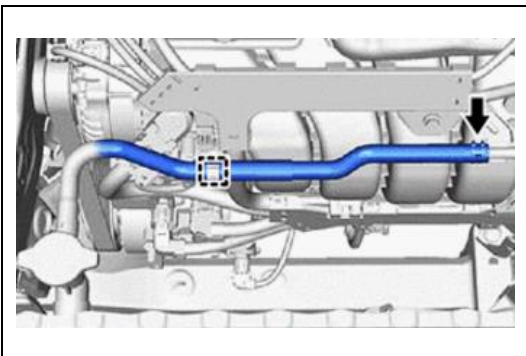
c. Install the fuel tube to both the low-pressure fuel rail and the high-pressure pump of the **NEW** engine.



14. TRANSFER No. 1 VACUUM PUMP HOSE

a. Pinch the retainer of the No. 1 vacuum hose connector, then pull the connector off the vacuum pump assembly.

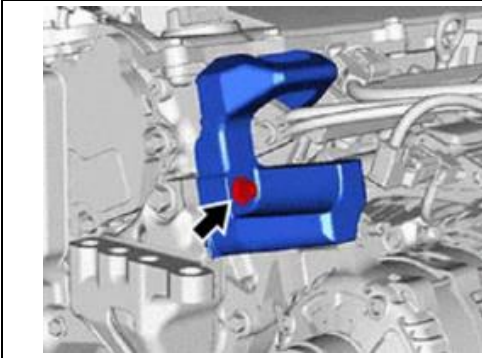
b. Install the No. 1 vacuum pump hose onto the **NEW** engine.



15. TRANSFER No. 5 WATER BYPASS HOSE

a. Remove the No. 5 water bypass hose from the original engine.

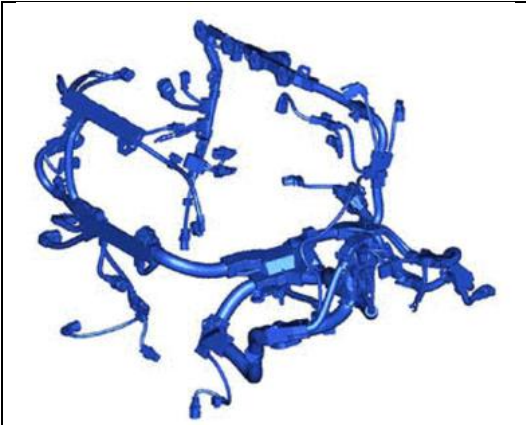
b. Install the No. 5 water bypass hose onto the **NEW** engine.



16. TRANSFER FUEL DELIVERY GUARD

- a. Remove the bolt and fuel delivery guard from the original engine.
- b. Install the fuel delivery guard and bolt onto the **NEW** engine.

Torque: 30 lbf.ft {40 N·m, 408 kgf·cm}



17. INSTALL ENGINE MAIN HARNESS

- a. Install the engine main harness onto the **NEW** engine.

18. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY FROM ORIGINAL ENGINE

- a. Follow the Repair Manual Process to separate the engine and transmission.

[UA80E \(AUTOMATIC TRANSMISSION / TRANSAXLE\): AUTOMATIC TRANSAXLE ASSEMBLY: REMOVAL; 2019 - 2020 MY Camry \(RM100000001E7WF\)](#)

19. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY TO **NEW** ENGINE

- a. Follow the Repair Manual Process to join the engine and transmission together

[UA80E \(AUTOMATIC TRANSMISSION / TRANSAXLE\): AUTOMATIC TRANSAXLE ASSEMBLY: INSTALLATION; 2019 - 2020 MY Camry \(RM100000001DVZC\)](#)

20. INSTALL **NEW** ENGINE & TRANSMISSION INTO VEHICLE

- a. Follow the Repair Manual Process to install the engine into the vehicle.

[A25A-FKS \(ENGINE MECHANICAL\): ENGINE ASSEMBLY: INSTALLATION; 2019 - 2020 MY Camry \(RM100000001EB0E\)](#)

◀ VERIFY REPAIR QUALITY ▶

- Verify all DTC's have been cleared.
- Verify the air cleaner cap and hose are properly installed.
- Verify there are no oil or coolant leaks.
- Test drive the vehicle to confirm normal operation.

If you have any questions regarding this update, please contact your regional representative.

IX. APPENDIX

A. PARTS DISPOSAL

As required by Federal Regulations, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, **unless requested for parts recovery return.**

