

# **TECHNICAL INSTRUCTIONS**

**FOR**

**SAFETY RECALL 23TA06**

**SPARE TIRE CARRIER CHAIN**

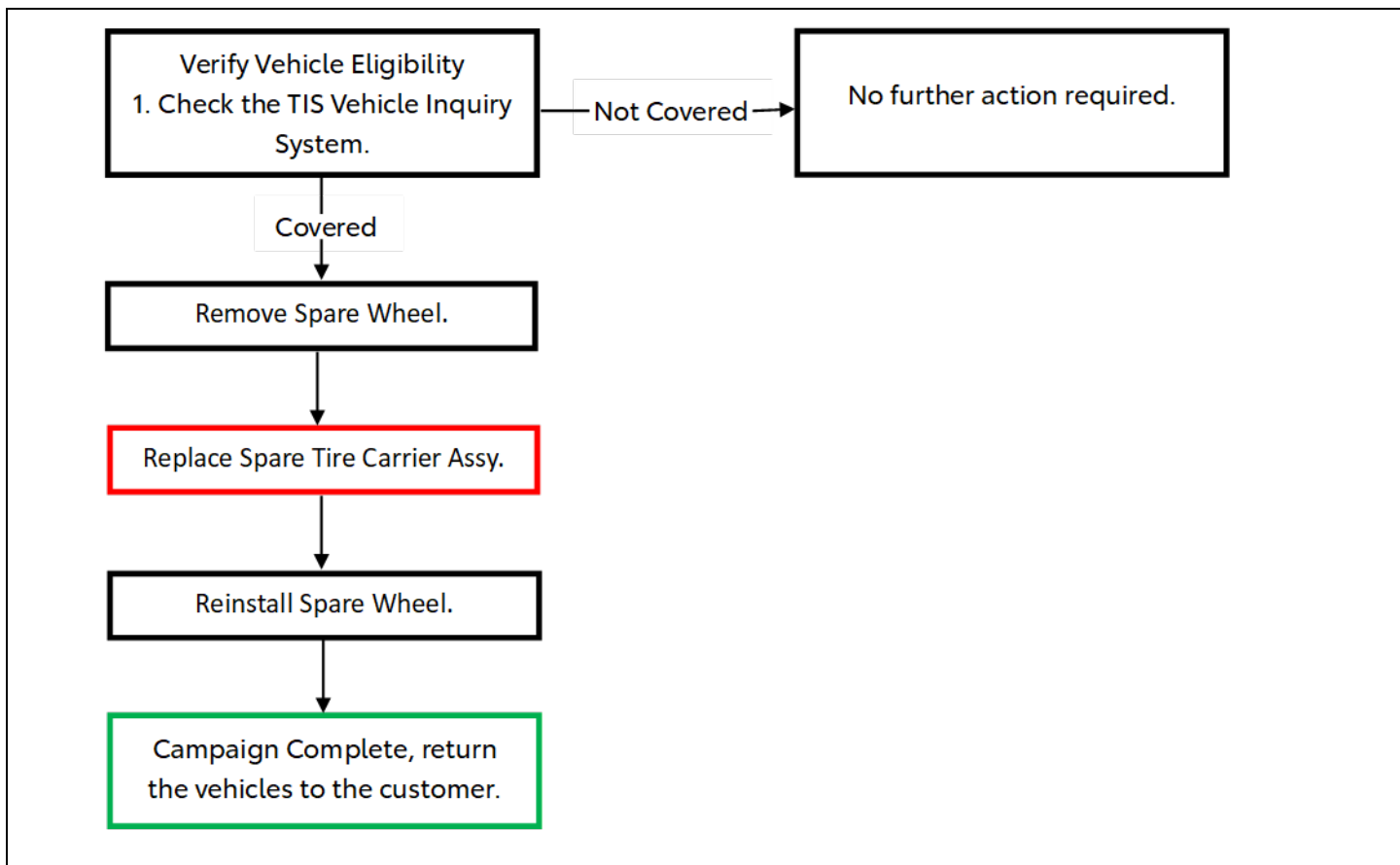
**CERTAIN 2023 TUNDRA, TUNDRA HV, AND SEQUOIA HV VEHICLES**

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 repair are required to currently have completed the following course:

- TIC206A – Electrical Repair 1

It is the dealership’s responsibility to select technicians that have completed the above courses to perform this repair. Carefully review your resources, the technician’s 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

### 1. CHECK VEHICLE FOR CAMPAIGN ELIGIBILITY

- Compare the vehicle's VIN to the VIN listed on the Repair Order to ensure they match.
- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Campaign, and that it has not already been completed.

**Note: TMNA warranty will not reimburse dealers for repairs completed on vehicles that are not affected or were previously completed, even by another dealer.**

## III. PREPARATION

### A. PARTS

Part Number	Part Description	Quantity
51900-34070	Spare Tire Carrier Assembly	1
PT276-34071	Spare Tire Carrier Lock Assembly *	1

\*If required

### B. TOOLS & EQUIPMENT

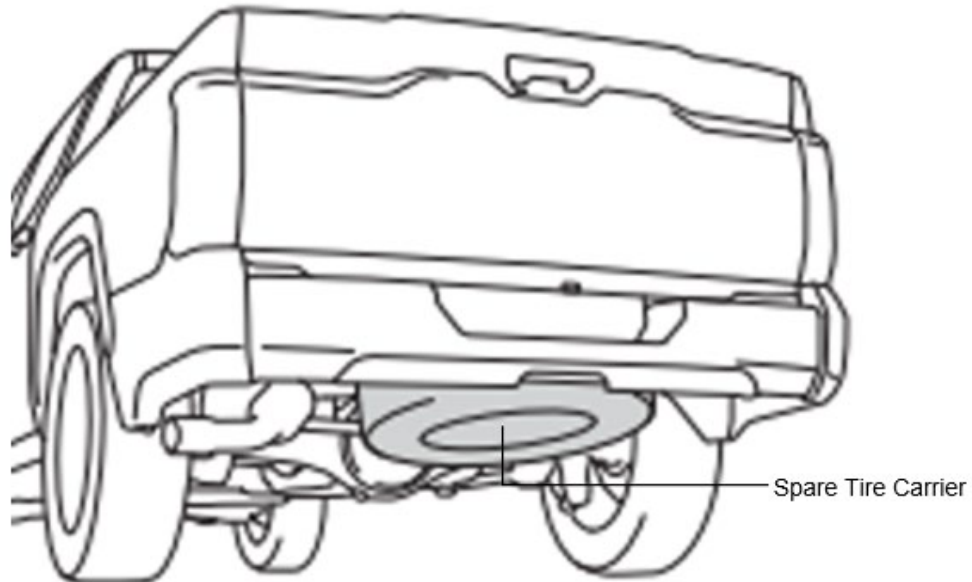
- Standard Hand Tools
- 3/8 12mm Socket
- 12mm 3/8 Crows Foot Socket
- 3/8 Torque Wrench
- 3/8 Flex-head Socket Wrench
- 12mm Flex-head Ratcheting Wrench

#### IV. BACKGROUND

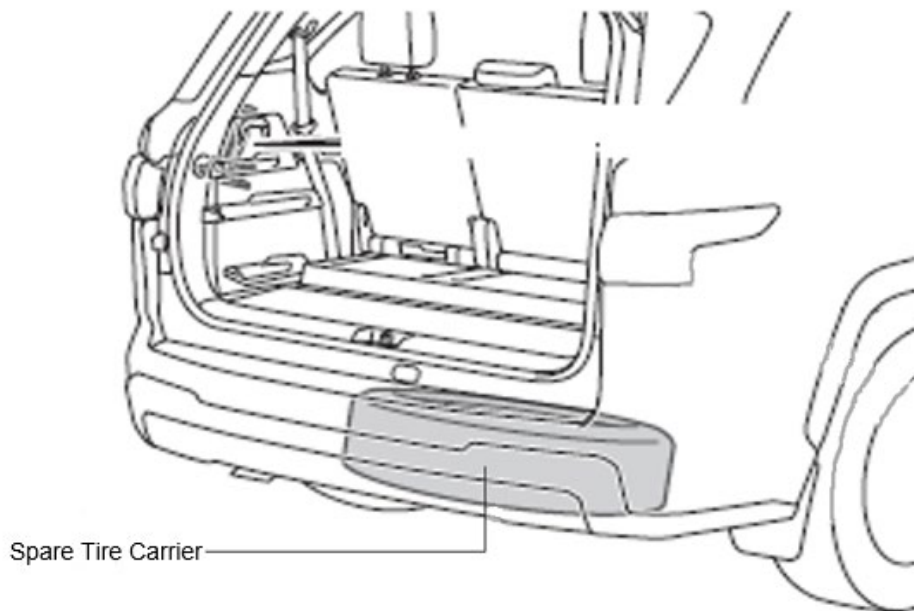
The subject vehicles have a spare tire under the vehicle that is secured in place by a steel chain. The chain links may have been improperly welded. Under certain conditions, these chains could break at any time allowing the spare tire to detach from the vehicle.

#### V. COMPONENTS

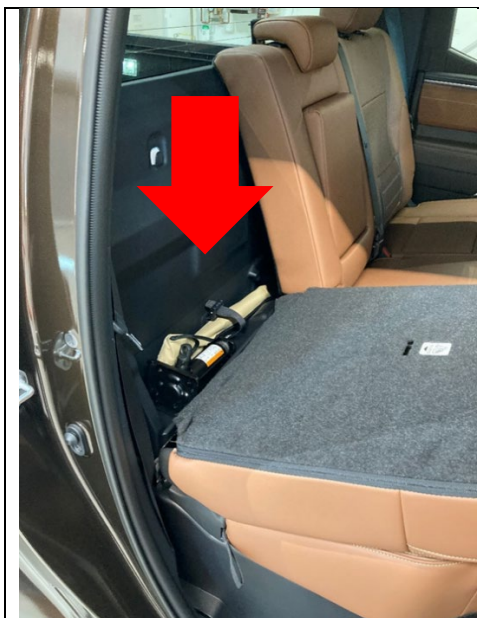
Tundra



Sequoia



## VI. WORK PROCEDURE



### 1. RETRIEVE THE TIRE JACK TOOL KIT FROM THE VEHICLE

#### For Tundra Vehicles:

- a. Open the passenger rear door and fold down the seat to access the tire jack tool kit.

#### For Sequoia Vehicles:

- a. Open rear hatch to access passenger rear storage compartment.
- b. Retrieve the tire jack from the vehicle-equipped tool kit.





## 2. LOCATE THE SPARE TIRE ACCESS PORT COVER

### For Tundra Vehicles:

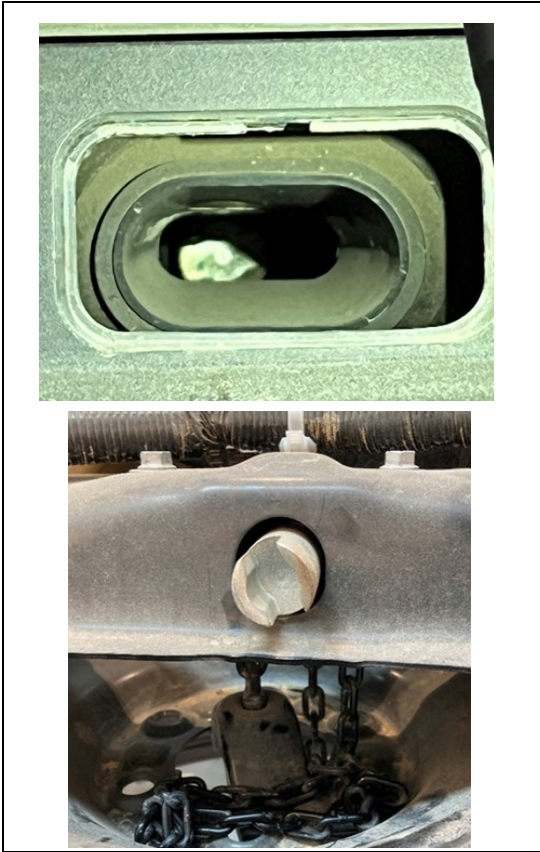
- a. The access port is located at the top right corner of the rear license plate mounting area.



### For Sequoia Vehicles:

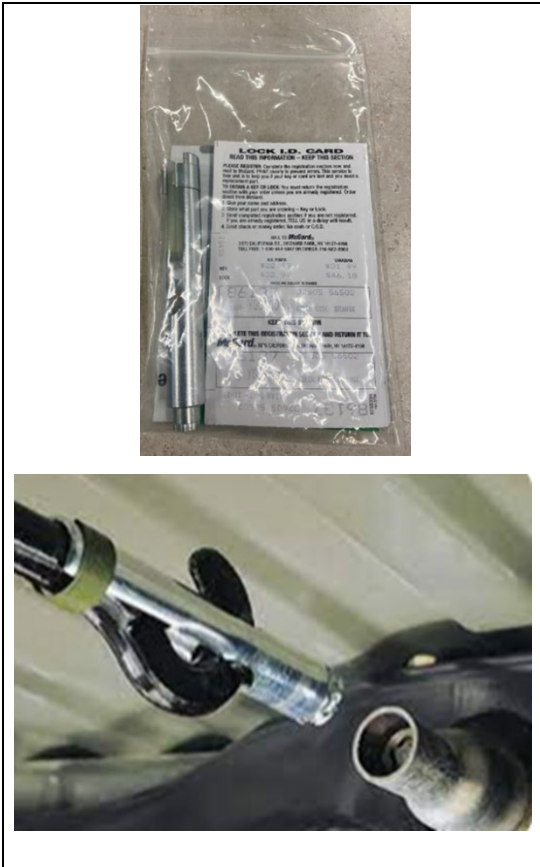
- a. Locate the spare tire access cover located near the back door latch.
- b. Using a small pry tool, remove the spare tire access port cover and place it in a safe location to be reinstalled later.





**3. LOCATE THE SPARE TIRE LOWERING SCREW**

- a. The spare tire lowering screw is visible through the access port and is located on the rear-facing side of the spare tire carrier assembly.



**4. SPARE TIRE CARRIER LOCK (IF APPLICABLE)**

	<p><b>Only follow this step if the vehicle comes with a spare tire carrier lock assembly installed on the spare tire lowering screw.</b></p>
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- a. If the vehicle is equipped with the spare tire carrier lock assembly, obtain the lock key from the glove box and attach it to the jack handle extension prior to attempting to lower the spare tire.
- b. Ensure the lock is mounted flush to the lowering screw before turning.





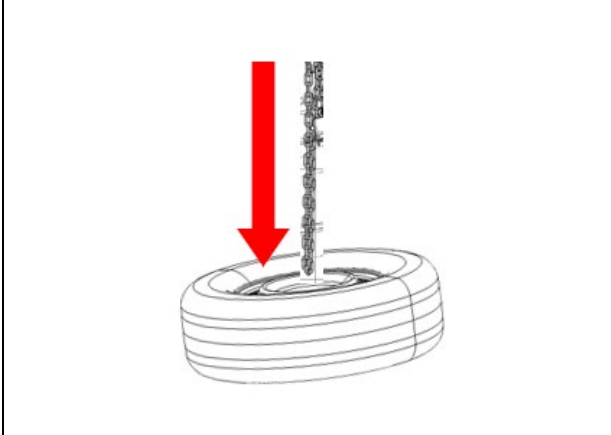
5. **INSERT JACK HANDLE EXTENSION INTO LOWERING SCREW**

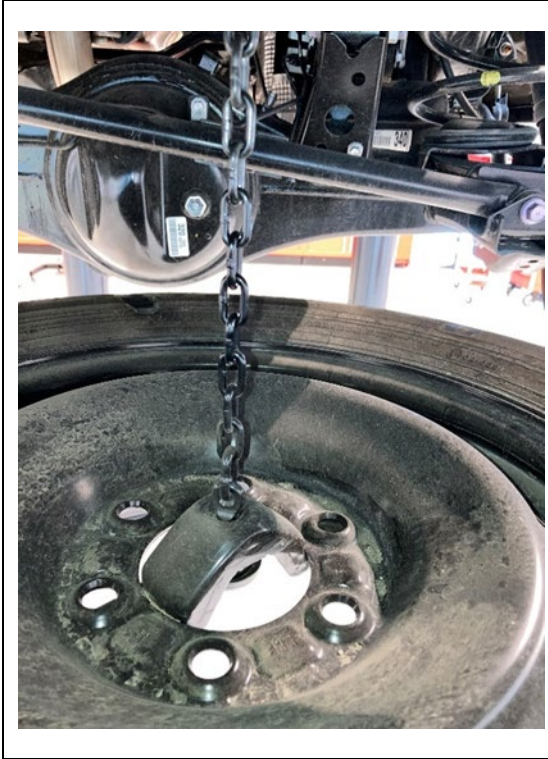
- a. Ensure that the jack handle extension is properly seated into the spare tire lowering screw.



6. **LOWER SPARE TIRE**

- a. Once the jack handle extension is in place, turn it **counterclockwise** to lower the spare tire.
- b. Ensure the spare tire is completely lowered.





**7. REMOVE THE SPARE TIRE FROM THE CARRIER ASSEMBLY**

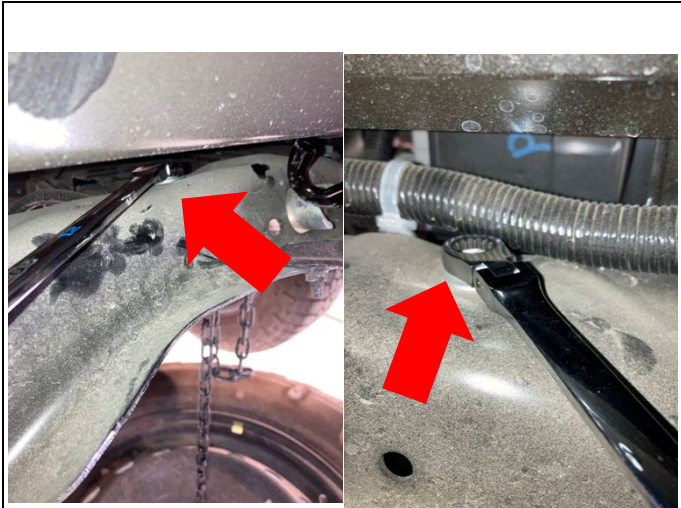
- a. With the spare tire completely lowered, remove the spare tire from the carrier assembly and place the spare tire in a safe location.



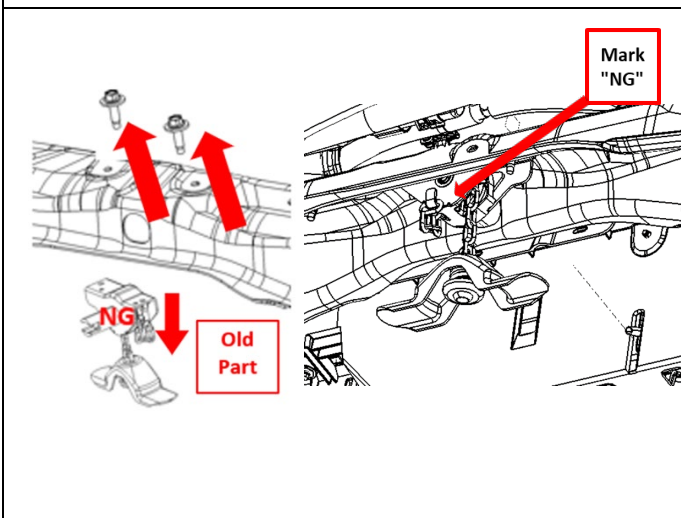
**8. REMOVE THE SPARE TIRE CARRIER ASSEMBLY FROM THE VEHICLE**

- a. Locate the (2) 12mm bolts installed on the top side of the rear frame cross-member.



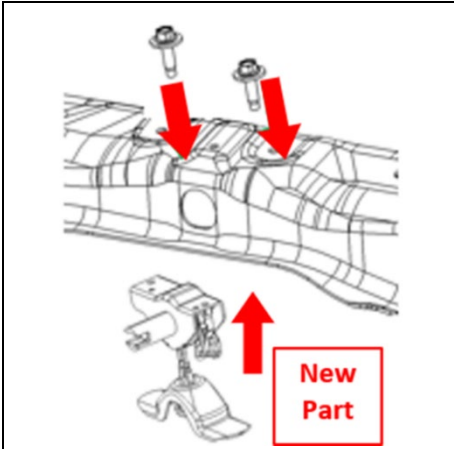


b. Remove (2) 12mm bolts using a flex-head ratcheting wrench.



c. Properly mark the old part and discard it.

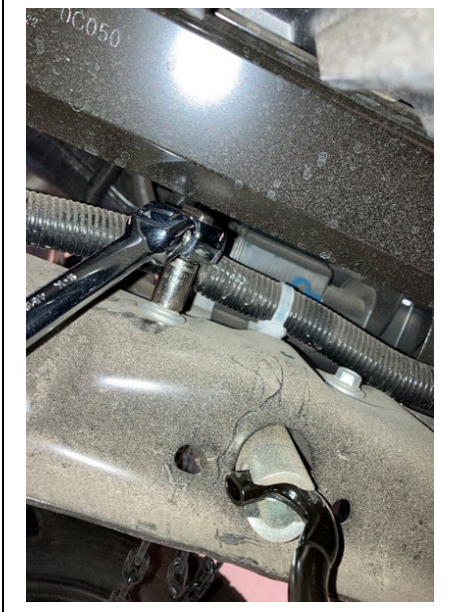
**NOTE:** Be sure to mark assembly "NG" or similar to ensure it does not get mistaken as a new part.



9. **INSTALL NEW SPARE TIRE CARRIER ASSEMBLY (TUNDRA ONLY)**

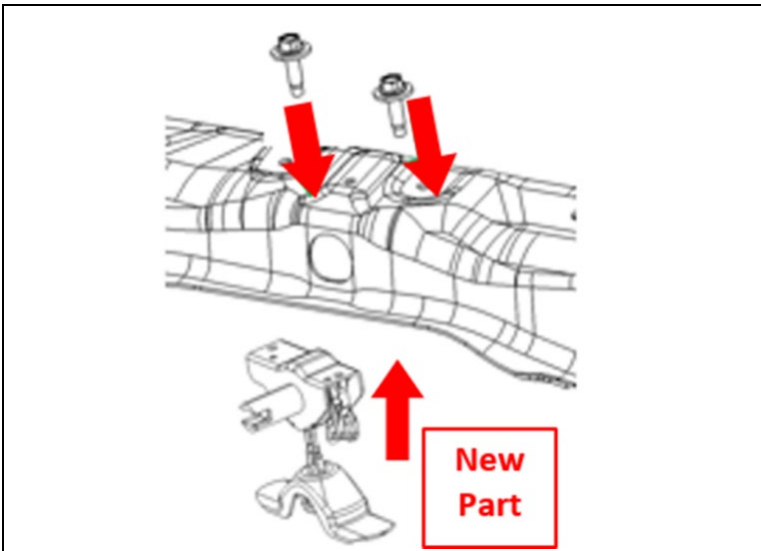
- a. Install new spare tire carrier assembly by installing the (2) 12mm bolts using a 3/8 click style torque wrench and a 3/8 12mm socket.

- b. **Torque:**  
**33 N·m {3.4 kgf·m, 25 ft·lbf}**



**10. INSTALL NEW SPARE TIRE CARRIER ASSEMBLY (SEQUOIA ONLY)**

- a. Install new spare tire carrier assembly by installing the (2) 12mm bolts using a 3/8 click style torque wrench and a 3/8 12mm crows foot socket.

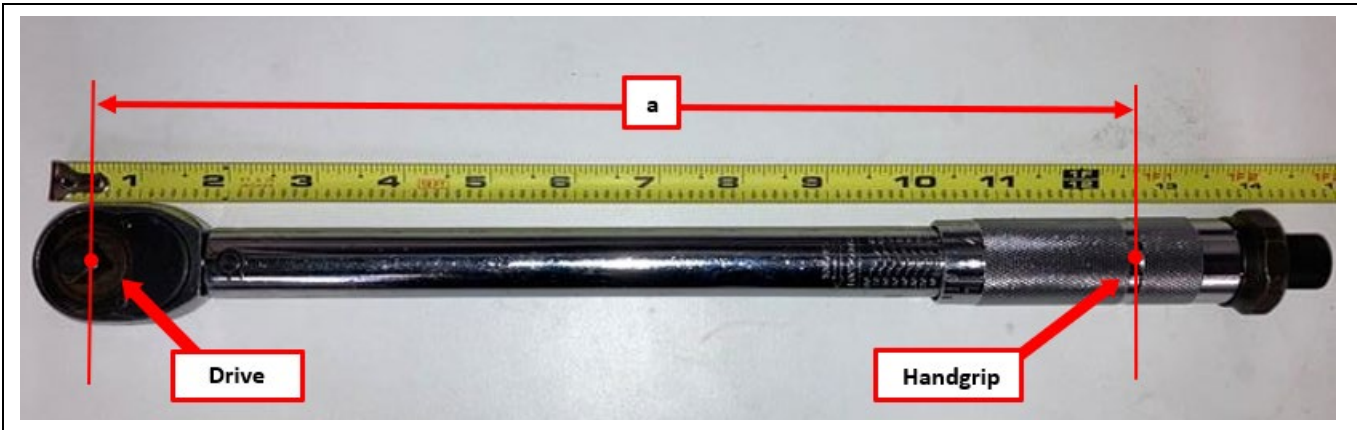


- b. Proceed to calculate torque in the following step.

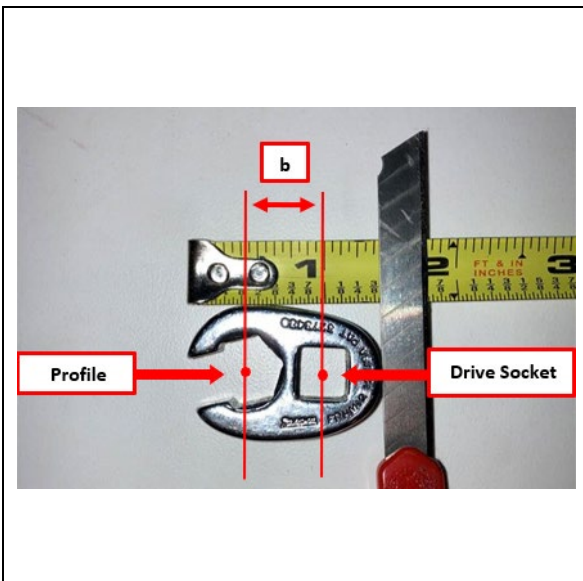
## 11. CALCULATE TORQUE (SEQUOIA ONLY)



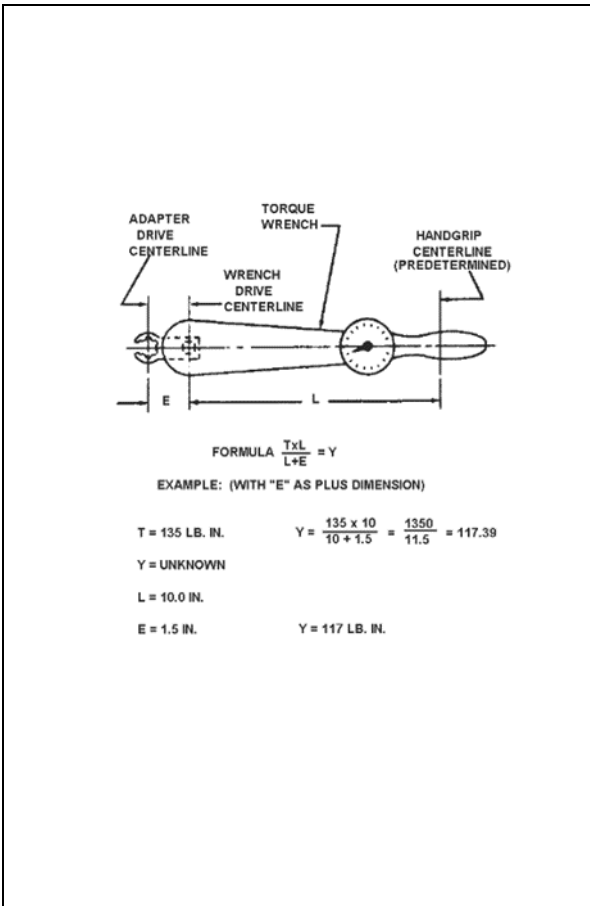
Only follow this step if performing the spare tire carrier assembly installation procedure on a Sequoia vehicle with the use of a crows foot.



a. Measure the Torque Wrench from the middle of the Handgrip to the center point of the Drive.



b. Measure the Crows Foot from the center of the Drive Socket opening to the center of the Profile opening.



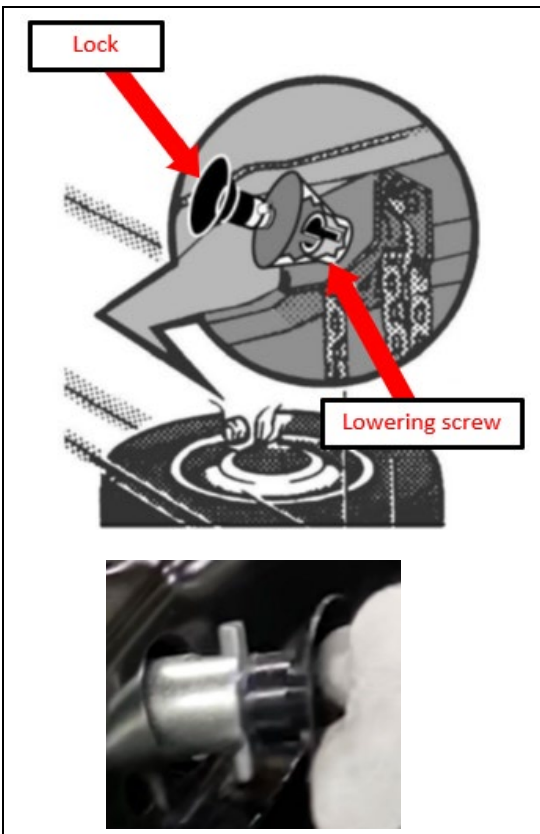
c. Calculate the torque offset using the following formula:

a = Torque Wrench measurement  
b = Crows Foot Socket measurement  
33Nm = nominal torque value

**Nominal Torque:**  
**33 N·m {3.4 kgf·m, 25 ft·lbf}**

**Torque Setting = ((33Nm x a) / (a + b)).**

NOTE: For converting Nm to ft lbs: (1ft lbs = 1.356Nm)



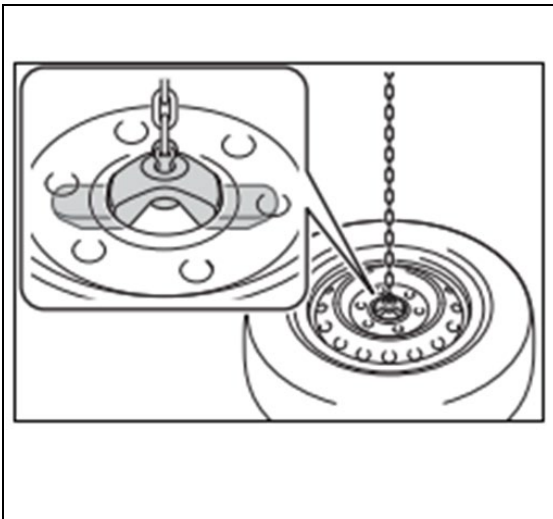
**12. NEW SPARE TIRE CARRIER LOCK INSTALLATION (IF APPLICABLE)**



**Only follow this step if the vehicle comes with a spare tire carrier lock assembly installed on the spare tire lowering screw.**

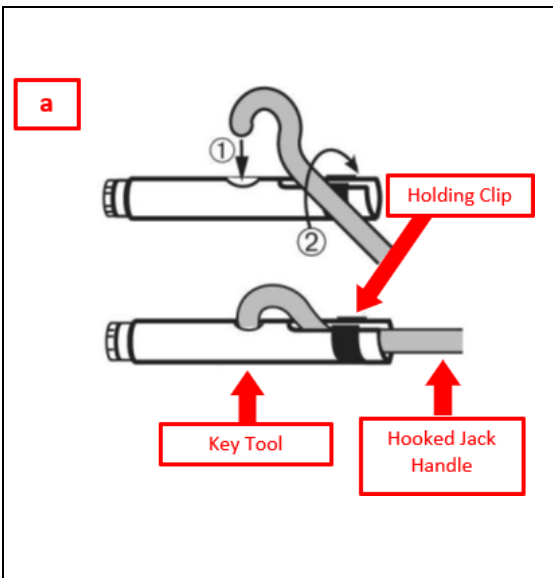
- a. If the vehicle was originally equipped with the spare tire carrier lock assembly, install a new spare tire lock assembly into the lowering screw:
- b. Ensure the lock is mounted flush to the lowering screw before turning.
- c. Press the spare tire lock in place until it is fully seated into the bottom of the lowering screw.





**13. INSTALL THE SPARE TIRE TO THE CARRIER ASSEMBLY**

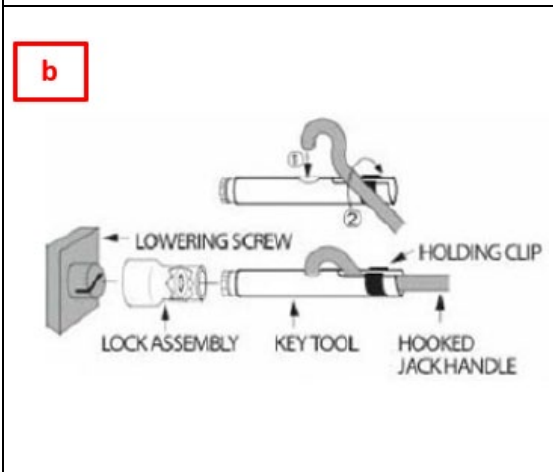
- a. With the spare tire bracket completely lowered, install the spare tire to the carrier assembly.



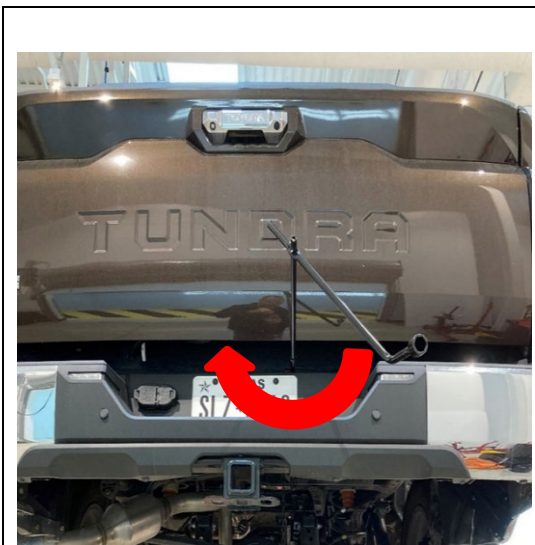
**14. INSTALL SPARE TIRE CARRIER LOCK KEY (IF APPLICABLE)**

	<b>Only follow this step if the vehicle has a spare tire carrier lock assembly installed on the spare tire lowering screw.</b>
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- a. Assemble the key assembly onto the hooked extension rod.

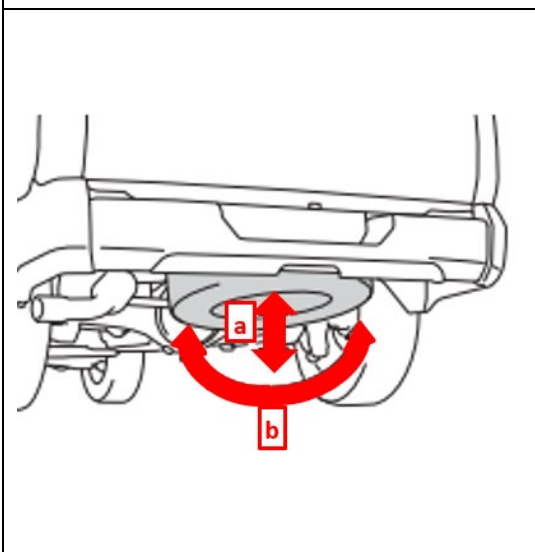


- b. Be sure to properly assemble the key lock assembly to ensure lock and key patterns are engaged before raising the spare tire.



#### 15. RAISE AND MOUNT THE SPARE TIRE TO THE VEHICLE'S UNDERBODY

- a. Insert the jack handle extension through hole access and properly seat into the spare tire lowering screw.
- b. Once the jack handle extension is in place, turn it **clockwise** to raise the spare tire.
- c. Raise the spare tire to fully secure to frame cross-member. While raising, ensure that the tire goes up evenly without catching on any surrounding parts.



#### 16. CONFIRM SPARE TIRE IS PROPERLY SECURED TO VEHICLE

- a. Try to push and pull the tire and ensure no looseness exists.
- b. Try to rotate the spare tire and ensure no looseness exists.

**NOTE:** If any looseness exists, lower the spare tire completely and repeat Step 16. Reconfirm if any looseness exists.

### ◀ VERIFY REPAIR QUALITY ▶

- Confirm spare tire carrier assembly bolts are properly torqued to specification
- Confirm spare tire is properly seated to the vehicle underbody
- Confirm that a new spare tire carrier lock is installed if the vehicle arrived with one installed.

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

## 10. APPENDIX

### A. PARTS DISPOSAL

In accordance with Federal law, 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.**

## B. CAMPAIGN DESIGNATION DECODER

